TRS-80®

Model 100 Portable Computer

Investment Analysis
Quick Reference

MODEL 100
INVESTMENT ANALYSIS
QUICK REFERENCE

INTRODUCTION

The Investment Analysis package consists of
three separate programs:

- Fixed Income Security Evaluator (FISE™) —
  calculates information that is useful when
  buying or selling fixed income securities.
- Commission Calculator (COMM™) — calculates
  commission charges for stock and option
  transactions.
- Option Strategy Evaluator (OSE™) — calculates
  the results of option transactions involving
  various combinations of put and call purchases
  and sales.

Loading, Saving, and Running Programs

For specific loading and saving information,
refer to "Quick Reference for Applications,"
included with this package.

To load and run a program from cassette tape
without saving it in the Model 100's memory,
complete the load instructions, type R U N, and
then press (ENTER).

To run a program saved in your Model 100's memory, access the program from the Model 100 Main Menu by moving the cursor with the space bar or arrow keys to highlight the program name. Then press (ENTER) to activate the program.

Exiting from a Program

By pressing (F8) at each program's Main Menu, you can return to the Model 100 Main Menu, but all your data is erased. If you want to retain the data you entered, turn off the computer after accessing the program's Main Menu.

FISE — THE FIXED INCOME SECURITY EVALUATOR

The FISE Main Menu:

```
Calc CTax CFrq          New  M100
```

Calc — calculates variables such as price, yield, and accrued interest.

CTax — changes the default settings for the income tax rate and capital gains tax rate.

CFrq — changes the payment frequency for any security.

New — erases all previously entered data.

M100 — returns the program to the Model 100 Main Menu.

Calculation Option - (F1)

The Security Type Menu appears after you select this option:

```
Bond GvtB MunN 360N 365N TsyB    Rtrn
```

Note: Rtrn returns you to the FISE Main Menu.

Bond — municipal, corporate, and government agency bonds which pay interest periodically and are based on a 30-day month and 360-day year.

GvtB — government treasury bonds which pay interest periodically and are based on actual days per month and year.

MunN — municipal notes which pay interest at maturity and are based on a 30-day month and 360-day year.

360N — notes which pay interest at maturity and are based on actual days per month and 360 days per year.

365N — notes which pay interest at maturity and are based on actual days per month and 365 days per year.

TsyB — treasury bills and discounted securities which pay no interest and are based on actual days per month and 365 days per year.

Select a Security Type, and press the appropriate function key. The Calculable Variable Menu (applicable to the specified Security Type) appears on the display. The variables are described below:

Pric — Price; the dollars and cents price per $100 of face value.

YMat — Yield to Maturity; the percent return on a security held to maturity, adjusted for coupon income, accrued interest expense, and price premium or discount from par.

Accr — Accrued Interest; interest earned per $100 of face value since the last coupon date. Issue date is used if the current payment period is the first payment period. FISE automatically determines if the first coupon period is long, short, or regular.

CYld — Current Yield; the annual interest income divided by the price.

YaTx — Yield after Tax; yield to maturity adjusted for income taxes on coupon income and on short term capital gains or losses and capital gains taxes on long term capital gains or losses.

YtCl — Yield to Call; the percent return on a security held to call date adjusted for coupon income, accrued interest expense, and premium or discount from call price.

DayD — Difference between dates; number of days between two dates according to the security type calendar.

DRat — Discount Rate; annualized percentage rate of difference between par and price.

Select a variable for calculation, and press the appropriate function key. The data entry screen appears. The data entry items and their formats are outlined below:

Data Entry Item (Format)	Description
Issue Date (MMDDYY)	Date of original issue
Settlement (MMDDYY)	Date ownership transfers
Maturity (MMDDYY)	Date face value is due
Coupon (pp.ppppp)	Annual rate of interest stated on security
Price (ddd.ccccc)	Dollars and cents per $100 of face value
Yield Mat (pp.ppppp)	Yield to maturity or yield to call
Call Date (MMDDYY)	Date which issuer can redeem security
Call Price (ddd.ccccc)	Dollars and cents per $100 of face value which issuer must pay upon a call redemption
D. Rate (pp.pppppp)	Discount rate which is the annualized percentage of the difference between the face value and the price

Enter each indicated data value. After calculation, the answer appears on the data entry screen. The FISE Main Menu returns to the bottom of the screen.

To return to the FISE Main Menu while entering data items, press Ⓜ.

Note the following when entering data values:

- For Bond and GvtB security types, make sure the Issue Date is set to 10163 (default date) if it is unknown or if the settlement date is more than two pay periods from the issue date.

- When you enter either the Price or Yield to Maturity, the program calculates the Current Yield. If you enter a 0 for Price and a valid Yield to Maturity for the Yield, the Current Yield routine calculates the Price in addition to the Current Yield. However, if you enter a valid Price, the Yield is ignored.

- If you enter a valid Yield when calculating Price for Treasury Bills, the program calculates Discount Rate in addition to Price. If you enter a 0 for Yield, you must enter a valid Discount Rate. The program calculates both the Price and Yield.

- If you enter a valid Price when calculating Yield for Treasury Bills, the program calculates Discount Rate in addition to Yield. If you enter 0 for Price, you must enter a valid Discount Rate. The program calculates both Price and Yield.

Change Tax Rate Option (F2)

Change Tax Rate screen:

```
Change Tax Rates for :     {Inc. Tax or
                               Cap Tax}

Income Tax Rate                50
Capital Gains Tax Rate         20
```

Enter the new tax rate and press (ENTER), or press (ENTER) to leave the value unchanged. The display returns to the FISE Main Menu.

Change Payment Frequency Option (F3)

After you select this option, the Security Type Menu appears:

```
    Bond GvtB MunN 360N 365N TsyB    Rtrn
```

Select a security type, and the Change Frequency screen appears:

```
    Change frequency for:      {security type}

    Current Frequency          2
    Enter New Frequency        2
```

To change the frequency, type any whole value between 1 and 12 and press (ENTER). To leave the rate unchanged, press (ENTER). The screen returns to the FISE Main Menu.

COMM — The Commission Calculator

The COMM Main Menu:

```
BStk SStk BOpt SOpt        New   M100
```

BStk — buy stock
SStk — sell stock
BOpt — buy option
SOpt — sell option
New — erase all previously entered data
M100 — return to the Model 100 Main Menu

After you select a strategy, a data entry screen appears, with the Data Entry Transaction Menu displayed on the bottom of the screen:

```
NTrd ATrd %Dis CDis Calc  New   Rtrn
```

NTrd — access New Trade to enter a quantity and price for a new stock calculation.

ATrd — access Additional Trade to enter an additional quantity and price for the transaction currently shown on the display screen. The quantity is added to the Accum Qty total, and the price is used to adjust the Wt Avg Prc.

%Dis — select this function after entering a quantity and price to indicate a percentage discount rate from the regular commission. Cents per share is set to 0 and recalculated.

CDis — select this function after entering a quantity and price to indicate a cents per share charge for each share or single option. Discount Percent is set to 0 and recalculated.

Calc — choose this function when you are ready to calculate the information displayed on the data entry screen.

New — erases all previously entered data and returns to the COMM Main Menu.

Rtrn — choose this function to return to the COMM Main Menu with all data intact.

Select a function and enter the necessary data entry items:

*Quantity — total number of shares of stock or the number of 100 share option contracts.

Accum Qty — accumulated total of all new and added quantities of a specific stock or option contract.

*Price/shr — execution price of each share or single option per individual transaction.

Wt Avg Prc — weighted average price per share or option based on the Accum Qty.

Reg Comm — calculated total commission before discounts.

Cents/shr — whole cents per share or option before discounts.

Disc Comm — total commission after discounts.

Cents/shr — whole cents per share of stock or single option after discounts. (Also used to specify the commission per share or single option.)

Amt Disc — dollar difference between the regular commission and the discounted commission.

% Disc — percentage difference between the regular commission and the discounted commission.

SEC Fee — Securities Exchange Commission fee when selling a stock or option.

Net Monies — net cost to buy or net proceeds from selling the current transaction after the discounted commission and SEC fee.

* — required data entry input.

To return to the COMM Main Menu during the data entry process, press (M).

When the cursor moves to the lower right corner, no more data values are required to calculate the function you chose. You can either press (F5) to calculate your results or press another function key to add additional information for calculation.

OSE— The Option Strategy Evaluator

The OSE Main Menu:

    Call Put Strd   Selc   New   M100

Call — Call; buy strategies
Put — Put; sell strategies
Strd — Straddle; call and put options on the same stock.
Selc — Selection Menu; lists the various screens and printouts the OSE program produces. (You cannot access this function from the OSE Main Menu unless data is currently stored in memory.)
New — Erases all previously entered data.
M100 — Returns program to Model 100 Main Menu.

If you select either Call, Put, or Strd, a new menu appears listing the strategies available for the category you chose:

Buy — Buy
Sell — Sell
Bull — Bull Spread
Bear — Bear Spread
Btry — Butterfly Spread
SndW — Sandwich Spread
CvdW — Covered Write

Select a strategy. A Data Entry Table appears so you can enter the following data information:

B/S — Buy or sell. (This category is set by OSE.)

PCS — Put, call or stock. (This category is set by OSE.)

Srk — Strike price. Price at which you have the right to buy or sell a share of stock. Price must be an even number equal to or greater than 10 but less than 1000. (If the strategy is a Covered Write option, OSE sets the second strike price to 0.)

Price — Dollars and cents of transaction price. Price must be a decimal number between .01 and 999.99999.

Q — Quantity must be a whole number equal to or greater than 1 but less than 10. (Each single option represents one option contract of 100 shares of the underlying stock.)

Comm — Commission in cents per single option. Commission must be less than .99.

Net — Net money required to buy or sell the quantity of options at the stated price adjusted for commission. This figure is calculated by OSE.

Note: Enter all fractions in decimal form.

During data entry, you can move the cursor in the following ways:

    Ⓒ — moves the cursor to the strike price of the first option in the table.

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Ⓡ — moves the cursor to the strike price of the current option you are entering.

(DEL BKSP) — erases characters by moving the cursor to the left.

To return to the OSE Main Menu while entering data, press Ⓜ.

Displaying Data

Press Ⓕ5 at the OSE Main Menu to access the Selection Menu:

Data Summ Tabl Grph WdPr Plot New Rtrn

Choose one of the screens or printouts by pressing the corresponding function key:

Data — displays the Data Table with the most recently entered values. (Use this function after accessing the Selection menu from the OSE Main Menu.)

Summ — displays a transaction summary chart showing the profits or losses for each stock price ranging from an inflated stock price of 1000 to 0 by highest to lowest strike price.

Tabl — indicates the net profit/loss based on the expiration of the options at different stock prices. The net transaction cost is also shown. Scroll through the table by using the Ⓐ and Ⓨ keys. To view a specific stock price, press the ⮕ key. To return to the Selection Menu, press the ⬅ key.

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Grph — displays a graphic representation of the selected strategy on the Model 100 screen. The top and bottom figures represent the high and low stock prices, and the left and right figures indicate the greatest loss and profit. To redisplay the Selection Menu, press any key.

WdPr — prints a detailed summary and graph of the selected strategy on a dot matrix or daisy wheel printer. The graph indicates the range of stock prices, the profit/loss scale, and the net profit/loss amount.

Plot — prints a detailed summary and graph of the selected strategy on the Color Graphics Printer. In addition to plotting the range of stock prices and the profit/loss scale, the Graphics Printer plots a vertical line at the zero profit/loss point and a horizontal line at the striking price of each option.