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Calculator

The system includes five types of calculators:

1. Basic mathematical functions, such as adding, subtracting, multiplying, dividing, square roots.
2. Financial calculator for present value calculations, internal return calculations, etc.

The financial calculator handles both fixed annuity type computations and irregular cash flow calculations.
3. The date calculator calculates the number of days between two dates. Alternatively, you can add or deduct days from a date and calculate a future or past date.
4. Amortization tables.
5. The Trigonometry calculator calculates the sides, the hypotenuse, the angles and radians of a triangle.

Math Calculator

The Math Calculator provides the general mathematical functions:

Additions	(+, ENTER)
Deductions	(-)
Multiplications	(*, x, X)
Divisions	(/, :)
Square roots	(r, R)
Raising a number	^
Percentage	(%)

Generally, the operator key can be placed before or after the number (/100 or 100/). However, in the case of the first number or a percentage function, the operator must be entered after the numeric value.

The number of decimal places is controlled by the Decimal Option. The options are: 2 decimal places or 5 decimal places.

Financial Calculator

The Financial Calculator provides the functions associated with interest discounting, such as net present values (NPV), future values (FV), internal rate of return (IRR). The system also calculates interest rates, number of periods and installment amounts (PMT).

The financial calculator consists of two sections:

1. Fixed stream of cash flow
2. Irregular cash flow

For a fixed stream cash flow, simply enter the available data and press the appropriate Calc button.

The available functions are: annual interest rate, present value, future value, number of periods, and amount of periodic payments. Function buttons are disabled if the input data for a given calculation is incomplete.

Before a calculation, you must ensure that the "Due" parameter (payments due in advance or in arrear) and the "Term (compounding)" parameter (monthly or annual payments) are set correctly. If you select 'Days', you should also choose between 365, 366 or 360 days. These parameters can be saved in a permanent file. See also [System Settings](#).

Date Calculator

The Date Calculator can be accessed by pressing the Date Calc button.

The Date Calculator calculates the number of days between two dates. It also add days to a date and deduct days from a date.

Example A:

1. In the FROM Date field, type a date. Most date formats are supported. If you omit the year, the system will use the current year.
2. In the TO Date field, type another date.
3. Press the Calculate button.

The answer represents the number of days between the two dates.

Example B:

1. In the FROM Date field, type a date
2. In the TO Date field enter a positive or a negative number.
3. Press the Calculate button

The system adds or deducts the number to the date entered.

Most common date formats are supported. If the year is left blank, the system assumes the current year.

Irregular Cash Flow

The Financial Calculator calculates the internal rate of return (IRR), present value (NPV) and future value (FV) of an irregular stream of cash flow. The system can also calculate the payback period.

Enter the cash flow receipts and payments in the Cash Flow Table. For PV and FV calculations, also enter the annual interest rate.

The cash flow table has two columns: the installment amount and the number of periodic payments (x). If the number field is left blank the system assumes one single payment. The IRR calculation requires at least one negative amount.

New rows can be inserted at the active (highlighted) location by pressing the 'Insert' button, and active rows can be removed by pressing the 'Remove' button.

To save the cash flow data, select 'Save As' from the File menu. Enter the file name and choose OK. To retrieve the file data, select Open from the File menu.

Before calculating, ensure that the terms (monthly, annual) are set correctly. All irregular cash flow entries are assumed to be paid at the beginning of each period. The entry on the first row represents 'day zero'.

Press the appropriate calculation button. If you select Payback, the system displays the development of the Net Present Value. The payback period is indicated by the position where the NPV changes from negative to positive.

To clear the screen, choose the Clear button.

Other Features

Invert

The invert function inverts a number of the active (highlighted) field. A positive number becomes negative and vice versa.

Rollback

The rollback feature erases the last entry. (Available in the Math Calculator only).

Cut-Copy-Paste

These features store and retrieve data via the Windows clipboard facility.

Undo

The undo feature restores the current field to the prior value.

Print, File, Open

The irregular cash flow entry table can be printed, filed and retrieved. From the File menu, select Print, File or Open.

Paste Pi

This function copies the pi factor (3.14159265) to the input field. The pi factor is useful mainly in geometric calculations.

System Settings

The Due, Term and Days parameters can be saved in a permanent file.

To save the system settings

1. From the File menu, choose Save Settings.
2. The system will save the **current** settings.

Copyright, Registration, Technical Support

This system was developed by Informatik Inc, P.O. Box 868, Devon, Pennsylvania 19333. For information on program modifications, systems integrations and custom applications, please contact Informatik Inc.

To register

From the About menu, choose Registration, Copyright and follow the instructions.

To obtain technical support

From the Help menu, choose Technical Support and follow the instructions.

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Trigonometric Functions

To perform trigonometric calculations, choose the Trigonom button. The Trigonometric Functions window is displayed.

The system calculates the two sides, the hypotenuse, the angles and radians of a triangle.

1. You must enter two parameters (only two, not more). At least one of the parameters must be a side or the hypotenuse. The angles can be entered in decimal format (e.g. 30 degrees, 30 minutes = 30.50), or in the traditional format(e.g. 30 50 45). If you use the traditional format, you must insert a space between the degrees and minutes and seconds.
2. Press the Calculate button.

Amortization Tables

You can display or print amortization tables, loan repayment schedules, etc.

To create an amortization table

1. Press the Amortization button at the top of the screen. The Amortization Table window is displayed.
2. Set the 'Due' parameter: Select either Beginning-of-Period or End-of-Period. (Are the payments due at the beginning of the period or at the end of the period?)
3. Set the 'Terms' parameter: Select from Monthly, Quarterly or Annual payments.
4. In the Header section, type the heading of the printed amortization table.
5. Enter the Principal, Interest rate, Periods and Payment Amount. The interest rate is entered in full numbers, not decimals. 10.75% is entered as 10.75 (not 0.1075). The percentage sign is not entered.
6. Enter the First Payment Date. Most formats are supported. This is the date when the first installment is due. If the year is omitted (e.g. 1/1), the current year will be used.
7. The system can calculate the interest rate, the number of periods or the payment amount if all the other parameters are entered. Just click the appropriate Calc button.
8. If you have a loan with different levels of interest rates, specify the subsequent terms in the Subsequent Terms frame on the right side of the screen. Enter the number of payments, interest rate and the amount of the periodic payment.
9. To view the amortization table, choose View Table from the File menu, or choose the View button. To return to the main screen, press the Close button.
10. To print the amortization table, choose Print Table from the File menu, or choose the Print button. The Print dialog box appears.
11. In the Print dialog box, select the printer (if required), and choose OK.

The residual balance (often just a few cents arising from rounding) is shown in the Residual box. The residual is added to the last payment.

To calculate payments based on 'interest only', choose the Interest Only button.

