

Spreadsheets

Ed Ryczek
Edry01@earthlink.net

Brief History

The first electronic spreadsheet was introduced as VisiCalc in 1979. VisiCalc was slow to respond to the introduction of the personal computer and ultimately went out of business. Lotus 1-2-3 emerged in 1982 and was the only spreadsheet software throughout the 1980's. It contributed greatly to the success of the IBM-PC. Lotus was purchased by IBM in 1995 and continues to be a dominant player in spreadsheet software. When Microsoft's Windows gained wide acceptance in 1989, Microsoft developed the Excel spreadsheet and it quickly became the front-runner of spreadsheet software. Recently, Microsoft introduced the WORKS SUITE, which includes a spreadsheet program that is very similar to Excel. It is somewhat limited, and much less power. It is excellent for first time spreadsheet users who do not need the power of Excel. It allows users to develop their own spreadsheet, or adopt and modify one of the many built-in templates.

Definition

In contrast to a Word Processor, which manipulates text, an electronic spreadsheet manipulates numerical data. The electronic spreadsheet also called worksheet, is an automated version of an accountant's ledger. Excel's worksheet consists of 256 columns and 65,536 rows. Unlike the accountant's ledger, which is created on paper using a pencil and a calculator, the electronic spreadsheet is created using a computer and eliminates the paper, pencil, eraser and calculator. A spreadsheet can be used for nearly any job that uses columns and rows.

Advantages

- Accuracy, Speed, And Professional appearance
- Ability to edit and format data
- Perform calculations, creates graphs and prints
- What if Analysis

Data entered in the spreadsheet can be edited and revised using the program commands. Numeric or text data is entered into the worksheet in locations called cells. Each cell is identified by a combination of a letter and a number representing the column (Letter) and number (Row). Any entry can be erased, moved, copied or edited. Formulas can be entered to perform calculations using data contained in specified cells. The results of the calculations are displayed in the cell that contains the formula. The worksheet can be printed in its entirety or selected portions.

The design and appearance of the spreadsheet can be enhanced in many ways. A numeric entry in a cell can be displayed with a dollar sign and can be set with a number of decimal places. Cell entries can be aligned Left, center or right; fonts can be changed, columns and rows can be inserted and deleted and cell widths can be enlarged or shortened.

You can modify the values in the worksheet to see the effect of what happens to the worksheet if the values change. This is called "what if analysis". Questions that once were too expensive to ask or too long to answer can be answered almost instantly. Planning that was once partially based on instinct has been replaced with facts. However, any financial planning resulting from the data in a worksheet is only as accurate as the data and the logic behind the calculations.

Spreadsheets also have the ability to produce a visual display of the data in the form of graphs/charts that will automatically change if the data changes.

In Excel's spreadsheet, you can create multiple worksheets in one workbook (File) and they can be linked so that when data changes in one worksheet it automatically updates data in another. ♦♦

A Few Comparisons

	Excel Spreadsheet	Works Spreadsheet
Columns	256	256
Rows	65,536	16,384
Sort	Yes	No
Multiple Sheets/Linking	Yes	No
Macros	Yes	No
Toolbars	14	1
Links to Web Page/Email	Yes	No
Displays multiple opened files	Yes	No
Functions	236	76

IRA WITHDRAWALS				
IRA Amount				750,000
Estimated Inflation Rate				102.00%
Estimated Annual Earnings Rate				4%
Estimated Annual Withdrawal				40,000
Year	Beg Balance	Withdrawals	Earnings	End Balance
yr 1	750,000	40,000	28,400	738,400
yr 2	738,400	40,800	27,904	725,504
yr 3	725,504	41,616	27,356	711,244
yr 4	711,244	42,448	26,752	695,547
yr 5	695,547	43,297	26,090	678,340
yr 6	678,340	44,163	25,367	659,544
yr 7	659,544	45,046	24,580	639,077
yr 8	639,077	45,947	23,725	616,855
yr 9	616,855	46,866	22,800	592,788
yr 10	592,788	47,804	21,799	566,783
yr 11	566,783	48,760	20,721	538,745
yr 12	538,745	49,735	19,560	508,570
yr 13	508,570	50,730	18,314	476,154
yr 14	476,154	51,744	16,976	441,386
yr 15	441,386	52,779	15,544	404,151
yr 16	404,151	53,835	14,013	364,329
yr 17	364,329	54,911	12,377	321,794
yr 18	321,794	56,010	10,631	276,416
yr 19	276,416	57,130	8,771	228,058
yr 20	228,058	58,272	6,791	176,577
yr 21	176,577	59,438	4,686	121,824
yr 22	121,824	60,627	2,448	63,646
yr 23	63,646	61,839	72	1,879
yr 24	1,879	63,076	(2,448)	(63,645)
yr 25	(63,645)	64,337	(5,119)	(133,102)
yr 26	(133,102)	65,624	(7,949)	(206,675)
yr 27	(206,675)	66,937	(10,944)	(284,556)
yr 28	(284,556)	68,275	(14,113)	(366,945)
yr 29	(366,945)	69,641	(17,463)	(454,049)
yr 30	(454,049)	71,034	(21,003)	(546,087)

