

GRiDPlan Worksheets

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GRiDPlan—Worksheets

This chapter contains an introduction to GRiDPlan and a description of each of its commands and built-in functions. If a command is used exclusively with GRiDPlan, it is described in detail; if it can be used with one or more of the other GRiD Applications, you are referred to the “Common Commands” chapter for details.

About GRiDPlan GRiDPlan’s electronic worksheet simplifies the manipulation of numbers and text. Each cell of the GRiDPlan table can accept a word for headings or a number for calculations. You can move to any cell and change its contents just by typing. Or, you can specify that a cell’s value be based on the result of a formula you write. GRiDPlan calculates cells’ values for you automatically.

Topics in this introduction include the following:

- ☐ Creating a worksheet—overview
- ☐ Summary of commands
- ☐ The GRiDPlan Display
- ☐ Handling oversize worksheets
- ☐ Moving about the display
- ☐ Rules for cell contents

Creating a Worksheet—Overview

You might follow the steps below the first time you create a worksheet and use GRiDPlan to manipulate your data. For step-by-step instructions that introduce you to worksheet functions such as calculating data, see “Session 2: GRiDPlan Worksheets,” in the *Getting Started* tutorial.

To Use GRiDPlan

1. Create a file with Kind set to Worksheet. (See the File form section in the “System Basics” chapter for information on creating files.) The GRiDPlan Display appears. (It is explained later in this chapter.)
2. Determine the worksheet format and characteristics with the Options (CODE-O) and Properties (CODE-P) commands. This step is optional, because both the Options and Properties forms contain preset characteristics for worksheet files.
3. Type your data into the worksheet.



4. Type in formulas for cells, where applicable, using the Define Cell command (CODE- =).
5. As you work, save your data with the Transfer command (CODE-T). This protects you against the loss of all your work through a power failure or surge.
6. You can print out all or selected portions of your worksheet with the Print item of the Transfer command (CODE-T). See the section Transfer (Print) – CODE-T in the “Common Commands” chapter for details.
7. When you complete work on your worksheet, several commands are available for you to exit GRiDPlan; the command you use depends on what you want to do next. These commands are summarized below; see the “Common Commands” chapter for details on their use.
 - You can transfer data to and exchange your worksheet file for another worksheet file, or a database file, graph file, or a text file by using the Append to a File and Write to a File items of the Transfer command (CODE-T).
 - You can exchange your worksheet file (without transferring data) for any other file by using the Exchange for Another File item of the Transfer command (CODE-T).
 - You can exit the worksheet file, save any changes you made to the file, and return to the File form by using the Quit command (CODE-Q).
 - You can exit the worksheet file without saving any changes and return to the File form by using the Cancel command (CODE-ESC). The data in the worksheet file is the same as it was when you last retrieved or saved it.

The Commands

The commands shown in Figure 5-1 are available to you when you see the GRiDPlan display (step 1, under To Use GRiDPlan). Press CODE=? to display the commands and a summary of their functions.

Figure 5-1. *The Commands Menu*

	A	B	C	D	E	F
Begin	CODE-B	Begin a (new) range selection				
Column	CODE-C	Change to a column selection				
Duplicate	CODE-D	Duplicate cells or text				
Erase	CODE-E	Erase cells or text				
Headings	CODE-H	Lock rows or columns in place				
Insert	CODE-I	Insert rows or columns				
Jump	CODE-J	Move outline to a cell				
Move	CODE-M	Move selected cells or text				
Options	CODE-O	Set worksheet characteristics				
Properties	CODE-P	Set properties of cells				
Quit	CODE-Q	Exit and save all changes				
Row	CODE-R	Change to a row selection				
Transfer	CODE-T	Write, exchange, print files				
Usage	CODE-U	Show memory and device usage				
Views	CODE-V	View separate areas at once				
Cancel	CODE-ESC	Exit without saving changes				
Define	CODE=	Move cursor to definition				
Pointer	CODE=	Point to cells in definition				
Calculate	CODE-RETURN	Calculate all values				
Commands: Select item and confirm						
Version 3.1.0 of GRiDPlan						

Each command is described in alphabetical order following this introduction.

The GRiDPlan Display

Before you create and use a worksheet, familiarize yourself with the way your computer displays the worksheet table on the screen. Figure 5-2 shows the GRiDPlan display.

Figure 5-2. *The GRiDPlan Display*

Row Number	A	B	C	D	E
1		Actual	Planned	Planned	Plan
2		1983	1984	1985	1986
3	Sales (\$000)	475000	533000	613000	700000
4	Net Earnings	5900	7000	8200	
5	Net Earnings as a % of				
6	Sales	1.24	1.31	1.34	
7	Average Assets	9.63	10.39	11.59	12.82
8	Average Equity	19.87	21.43	22.82	24.16
9	Market Value Per Share	39.00	39.60	47.52	51.68
10	Book Value Per Share	19.59	21.16	22.85	24.54
11	Sales Per Share	693	778	894	980
12	Cash Flow Per Share	13.83	16.35	18.53	20.81
13	Net Earnings Per Share	8.32	1.73	2.01	2.28
14	Dividends Per Share	1.72	2.01	2.35	2.70
15	Price/Earnings Ratio	8.27	7.80	7.80	7.80

Cell Coordinate: C6 = C4/C3*100

Cell Definition: C6 = C4/C3*100

Definition Area

The following describes the items shown in figure 5-2.

Cell	A single unit of the worksheet.
Cell contents	Numeric or non-numeric characters within a cell.
Cell coordinate	A column letter and a row number (D9, for example) that identify the location of a cell.
Cell definition	A formula that calculates the value of a cell. See the Define Cell—CODE- = section later in this chapter.
Cell outline	The outline indicates the cell that will be affected by the next command.
Cell reference box	A highlighted box that indicates a cell selection.
Column letter	An uppercase letter or pair of letters used to identify a column of the worksheet. You can reference 255 columns, column A through column IU.
Definition area	The area at the bottom of the display for typing and editing the current cell definition.
Row number	An integer that identifies a row in the worksheet. You can reference 255 rows, row 1 through row 255.

Moving About the Display

Certain keys move the highlighted box quickly from cell to cell. For example, by pressing one or two keys, you can move from your current position to the next row or cell, to the right- or left-most column, or to the top or bottom row of the display or entire file. For information on the keys, go to Appendix G and read the Selection section that describes the keys on your computer.

Handling Oversize Worksheets

You may receive the device full or memory full messages when storing or working with a worksheet that contains a large amount of data. The device full message means your permanent storage device—Bubble Memory, Hard Disk, or Floppy Disk—is out of space; out of memory means main memory (RAM) is out of space. Appendix I contains some guidelines for avoiding and handling the conditions that create these messages.

Rules for Cell Contents

The following rules explain how GRiDPlan treats the characters you type into cells:

- You can type both numbers and non-numeric characters into a cell. In calculating the value of a cell, GRiDPlan assigns a value of zero to each blank cell and each cell with non-numeric characters only.
- A *number* consists of one or more numerals with or without decimal points. It can be positive or negative. The following are valid numbers:

66.23

7878988

-2

In GRiDPlan, a *number* does not include commas or other non-numeric characters except as noted above. The following are invalid numbers and will be assigned a value of zero (0):

\$1

\$66.23

7,878,988

- You cannot type alphanumeric characters into a cell with a cell definition. See the Define Cell—CODE- = section later in this chapter.
- If you type a cell definition that results in an error, the word Error appears in the cell being defined. Error also appears in every other cell that has a cell definition that refers to the original cell.
- When you erase the cells of an entire column or row, any reference to an erased cell has the value Error.

Begin Selection—CODE-B The Begin Selection (CODE-B) lets you mark the start of data you want to select after the message line prompts you to select or make a selection. See Begin Selection—CODE-B in the “Common Commands” chapter for details.

Built-In Functions You can use GRiDPlan's built-in functions in defining a cell (see this chapter's section Define Cell—CODE- =). A *function* performs some mathematical operation and returns the result, or it retrieves some value such as pi. For example, the cell definition

B4 = SQR(B1)

defines the value in B4 to be the square root of the value in B1.

This section is arranged as follows:

- The next section, Expression, List and Range, and its four subsections describe the components of a built-in function.
- The sections thereafter describe each of the built-in functions in alphabetical order.

Expression, List, and Range

The terms *expression*, *list*, and *range*, are used to describe GRiDPlan's various built-in functions. Examples are

ACOS(expression)

AVG(list)

NPV(range, expression)

Expression See Cell Definition Parts under this chapter's section Define Cell—CODE- = .

List A *list* can be any sequence of numbers, cell references, cell ranges, or expressions. Each such entry in a list must be separated from the next entry by a comma. Here are three valid lists.

A1. .A10

J4, N10. .N20, W9

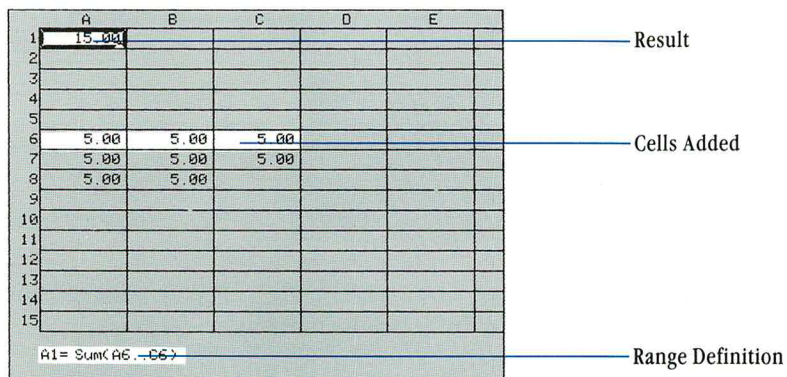
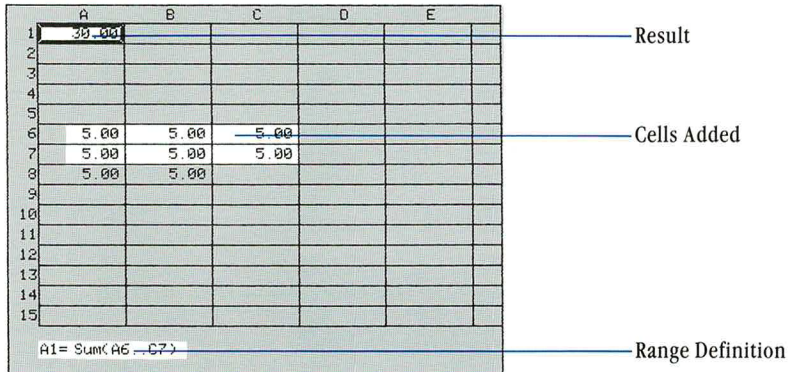
19.25, SIN(3.14), A1. .E2

Range A *range* defines a series of adjacent cells. To specify a range, type in the coordinate of the first cell, then two periods, and then the coordinate of the last cell in the series.

You can also enter the cell range automatically by using the Pointer command. The procedure for doing this is described in the Pointer—CODE- = section later in this chapter.

NOTE: GRiDPlan evaluates the range's coordinates rectangularly, either by rows or by columns, as specified in the Evaluation Order item on the Options form. See this chapter's section on Options (Worksheet)—CODE-O. The first coordinate represents the one corner of the rectangle; the second coordinate represents the diagonally opposite corner.

The top left corner of the rectangle is the starting point, regardless of what you specify as the first cell of the range. In other words, you can type the coordinates in any order; you will get the same results. The four figures below illustrate evaluation order.



	A	B	C	D	E
1	20.00				
2					
3					
4					
5					
6	5.00	5.00	5.00		
7	5.00	5.00	5.00		
8	5.00	5.00			
9					
10					
11					
12					
13					
14					
15					
	A1= Sum(A6..B8)				

Result

Cells Added

Range Definition

	A	B	C	D	E
1	20.00				
2					
3					
4					
5					
6	5.00	5.00	5.00		
7	5.00	5.00	5.00		
8	5.00	5.00			
9					
10					
11					
12					
13					
14					
15					
	A1= Sum(A7..B8)				

Result

Cells Added

Range Definition

Entering a Cell Range Automatically If you want to avoid typing in a cell range manually, use the procedure below.

To Enter a Cell Range Automatically

1. Move the outline to the cell you want to define, then press CODE-= and enter the cell definition area.
2. Press CODE-= again and move the outline to the first cell in the range.
3. Press CODE-B, the Begin Selection command.
4. Move the outline to the last cell in the range and confirm.

ABS (expression)

ABS(expression) calculates the absolute value of an expression.

ACOS (expression)

ACOS(expression) calculates an expression's arc cosine in radians.

ASIN (expression)

ASIN(expression) calculates an expression's arc sine in radians.

ATN (expression)

ATN(expression) calculates an expression's arc tangent in radians.

AVG (list)

AVG(list) calculates the average (arithmetic mean) of the values of the listed cells. If one of the cells in the list is empty, its value isn't included in this calculation.

CAUTION: Blank cells in *list* are not included in calculating the average value. When calculating an average value, you must enter a zero in each blank cell you want to include in the calculation.

In the worksheet below, for example, B13 = AVG(B1..B9) is equivalent to SUM(B1..B9)/COUNT(B1..B9).

	A	B	C	D	E
1	FY 1983	1192.00			
2	FY 1984	2291.00			
3	FY 1985	2169.00			
4	FY 1986	3363.00			
5	FY 1987	4511.00			
6	FY 1988	1387.00			
7	FY 1989	2687.00			
8	FY 1990	3312.00			
9	FY 1991	1143.00			
10					
11	Total	22055.00			
12	Count	9.00			
13	Average	2450.56			
14					
15					

B13= Avg(B1..B9)

CELL (column, row)

CELL(column, row) returns the value of a particular cell. *Column* is a number corresponding to the column letter: A = 1, B = 2, C = 3, and so forth; *row* is a row number. For example, if column C, row 2 contains the value 251 then CELL(3,2) returns 251.

COS (expression)

COS(expression) calculates the expression's cosine in radians.

COUNT (list)

COUNT(list) calculates the number of listed cells that contain numeric values. Empty cells or cells containing non-numeric characters are not counted.

In the illustration below, COUNT(B1..B9) would return a value of nine.

	A	B	C	D	E
1	FY 1983	1192.00			
2	FY 1984	2291.00			
3	FY 1985	2169.00			
4	FY 1986	3363.00			
5	FY 1987	4511.00			
6	FY 1988	1387.00			
7	FY 1989	2687.00			
8	FY 1990	3312.00			
9	FY 1991	1143.00			
10					
11	Total	22055.00			
12	Count	9.00			
13	Average	2450.56			
14					
15					

B12= Count(B1..B9)

EXP (expression)

EXP(expression) returns the value e —the base of natural logarithms, approximately 2.72—raised to the power of the expression. For example, EXP(1) = 2.72.

INT (expression)

INT(expression) removes the decimal portion of the expression, if present, and returns an integer.

IRR

The Internal Rate of Return (IRR) function calculates the rate of return of one or more periodic cash flows resulting from an initial investment. The function helps determine the profitability of an investment; it assumes that money is borrowed and reinvested at the same interest rate. See also MIRR (Modified Internal Rate of Return).

In IRR(range), *range* represents a series of cells. The value in the first cell is the initial investment; the values in the subsequent cells are the periodic cash flows.

In IRR(range, initialInvestment), *range* represents a series of cells containing periodic cash flows; *initialInvestment* is the original capital outlay, which may be positive or negative. One of the values for periodic cash flow must have a sign opposite to the sign of initialInvestment; if not, the result produced by using this function won't be accurate.

The values you express in the cells can be either positive or negative. Give negative values to identify amounts you pay out; positive values, amounts you receive.

CAUTION: Blank cells in *range* are not included in calculating the rate of return. If you want to include blank cells when calculating a rate of return, you must enter a zero in each blank cell.

Examples Assume cells A1..A6 contain the following values:

	A
1	-25500
2	5000
3	25000
4	4000
5	22000
6	25000

Then the IRR(range) and IRR(range, initialInvestment) functions will produce the results below.

$\text{IRR}(\text{A1}..\text{A6}) = 0.45$

$\text{IRR}(\text{A2}..\text{A6}, -25500) = 0.45$

LOG (expression)

LOG(expression) calculates the natural logarithm of the expression.

LOG10 (expression)

LOG10(expression) calculates the common logarithm of the expression.

MAX (list)

MAX(list) returns the maximum value in the specified list of cells.

MIN (list)

MIN(list) returns the minimum value in the specified list of cells.

MIRR

The Modified Internal Rate of Return (MIRR) function calculates the decimal rate of return of one or more periodic cash flows resulting from an initial investment. Like the IRR function, MIRR helps determine the profitability of an investment. Unlike IRR, the MIRR function assumes that negative cash flows are financed at a *safe rate* and positive cash flows are financed at a *risk rate*.

In MIRR(range, safeRate, riskRate), *range* represents a series of cells; the value in the first cell of the range is the initial investment; the values in the

subsequent cells are the periodic cash flows; *safeRate* and *riskRate* are the interest rates specified as decimals.

In **MIRR**(range, initialInvestment, safeRate, riskRate), *range* represents a series of cells containing the periodic cash flows; *initialInvestment* is the original capital outlay.

The values you express in the cells can be either positive or negative. Give negative values to identify amounts you pay out; positive values, amounts you receive.

Examples Assume cells A1..A6 contain the following values:

A	
1	-25500
2	5000
3	25000
4	4000
5	22000
6	25000

In this case, the **MIRR** (range, safeRate, riskRate) and the **MIRR** (range, initialInvestment, safeRate, riskRate) functions, respectively, will produce the results below.

MIRR(A1..A6, .09, .12) = 0.31

MIRR(A2..A6,-25500, .09, .12) = 0.31

NPV

The Net Present Value function (NPV) calculates the net present value based on the original value of an item, a stream of payments or receipts, and an interest rate. Such information helps determine whether an investment, for example, is advantageous.

In **NPV**(range,rate), *range* represents a series of cells. The value in the first cell is the initial investment, a value that is not discounted (effective time period is zero); the values in the subsequent cells are periodic cash flows such as payments or receipts; and *rate* is the annual interest rate per period, expressed as a decimal.

In **NPV**(range,initialInvestment,rate), *range* represents a series of cells containing periodic cash flows; *initialInvestment* is the original investment; and *rate* is the annual interest rate per period expressed in decimal.

NOTE: Observe the following in assigning interest rates and cash flow/investment values:

- ☐ The values you express can be either positive or negative. Give negative values to identify amounts you pay out; positive values, amounts you receive.
- ☐ If there is no initial investment, enter a zero as the value.

- To portray a payment in advance, enter it as part of the initial investment value.
- You must divide the annual interest rate by 12 when calculating on a monthly basis, by four on a quarterly basis, by two on a bi-yearly basis, and so on.
- ▣ **CAUTION:** Blank cells in *range* are not included in calculating the net present value. If you want to include blank cells when calculating a value, you must enter a zero in each blank cell.

Examples Suppose you buy an industrial tool for \$15,000; you rent it out and earn \$500, \$550, and \$600 per year for three years; and you sell the tool at the end of the fourth year for \$20,000. Typically, you arrange the values required to perform the function in adjacent cells in your worksheet as shown below.

A	
1	-15000.00
2	500.00
3	550.00
4	600.00
5	20000.00

In this case NPV(range,rate) and NPV(range,initialInvestment,rate) produce the following results.

$A6 = \text{NPV}(A1..A5, 0.09) = 15553.45$

$A6 = \text{NPV}(A2..A5, 15000, 0.09) = 15553.45$

PI

PI returns the value of pi, 3.14159265358979.

RND (expression)

RND stands for *random number*. This function lets you generate random numbers for worksheet cells.

GRiDPlan generates the random numbers according to the following conventions:

- GRiDPlan bases the number on a value it takes from the setting of the internal clock in your computer.
- The random number generated is a decimal value between 0 and 1 (for example, .31) in your worksheet.
- The number of characters to the right of the decimal point of each random number depends on what you specify for the Precision and Standard Format items in the Options form and for the Format item in the Properties form.
- Each time you use the Calculate command (CODE-RETURN), GRiDPlan

generates a new random number for each cell whose definition contains a RND function.

RND(expression) generates two types of random numbers, depending on the value you specify for *expression*, as follows:

- A number greater than zero (+ 1). GRiDPlan generates a random number and inserts it in the referenced cell.
- Zero. GRiDPlan inserts the last random number generated with a RND expression.

ROUND(expression)

ROUND(expression) removes the decimal portion of the expression and returns a rounded integer. If the decimal portion of the integer is 0.5 or higher, the rounded value is the numeric value of the integer plus 1.

Examples

ROUND(166.7) = 167

ROUND(166.289) = 166

SEARCH(range, value)

The Search function looks through a series of cells containing numbers and returns a row or column number. (The column number corresponds to the column letter: A = 1, B = 2, C = 3, and so forth.) *Range* refers to a series of cells with numbers in ascending order; the range of cells must all be in the same row (A1..F1, for example) or the same column (F1..F22, for example). *Value* refers to the number being searched for.

If Search finds a cell in the specified range with a number equal to value, it returns the row or column number of that cell. If it finds a cell with a number greater than value, it returns a value computed by subtracting 1 from the row or column numbers.

Examples If the value of cell ranges A1..A7 and B1..B7 are

	A	B
1	100	0.10
2	500	0.15
3	750	0.25
4	1000	0.35
5	1250	0.47
6	1500	0.66
7	2000	0.75

Then

SEARCH(A1..A7,1700) = 6

CELL(2,SEARCH(A2..A7,1700)) = 0.66

Error Conditions ERROR appears in the cell you define if (a) value is less than the first cell in the range or (b) the cells indicated by the range aren't in either the same column or the same row.

SGN(expression)

SGN(expression) returns the algebraic sign of an expression. Positive expressions return 1; negative expressions return - 1; and zero returns 0.

SIN(expression)

SIN(expression) calculates the sine of the number or equation in radians.

SQR(expression)

SQR(expression) calculates the square root of the number or equation.

SUM(list)

SUM(list) calculates the sum of the values in the cells specified by list.

For example, you could find the sum of a series of payments by typing $B10 = B1 + B2 + B3 + B4 + B5 + B6 + B7 + B8 + B9$, or you could find it with the definition $B10 = \text{SUM}(B1..B9)$.

	A	B	C	D	E
1	FY1983	1192.00			
2	FY1984	2291.00			
3	FY1985	2169.00			
4	FY1986	3363.00			
5	FY1987	4511.00			
6	FY1988	1387.00			
7	FY1989	2687.00			
8	FY1990	3312.00			
9	FY1991	1143.00			
10		22055.00			
11					
12					
13					
14					
15					

B10= Sum(B1..B9)

TAN(expression)

TAN(expression) returns the tangent of the number or equation in radians.

TRUNC(expression)

TRUNC stands for *truncate*. TRUNC(expression) removes without rounding the decimal portion of the expression (if present) and returns an integer.

Examples

TRUNC(166.7) = 166

TRUNC(166.289) = 166

Calculate—CODE-RETURN The Calculate command (CODE-RETURN) causes GRiDPlan to calculate the value of each cell in the worksheet based on the contents of the cells and cell definitions (see this chapter's section on Define Cell—CODE- = , below).

Order of Calculation

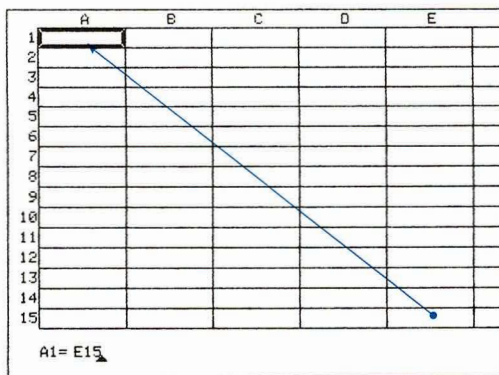
The order in which GRiDPlan calculates the value of the cells is determined by the Options form. See the Evaluation Order section under Options (Worksheet)—CODE-O later in this chapter.

Forward References

If a cell definition refers to a cell that hasn't been calculated yet by GRiDPlan, the definition contains a *forward reference*, which can cause subtle errors.

For example, suppose that cell A1 contains a cell reference to E15. When you press CODE-RETURN, GRiDPlan calculates A1 first; then it calculates E15. See Figure 5-3.

Figure 5-3. A Forward Reference



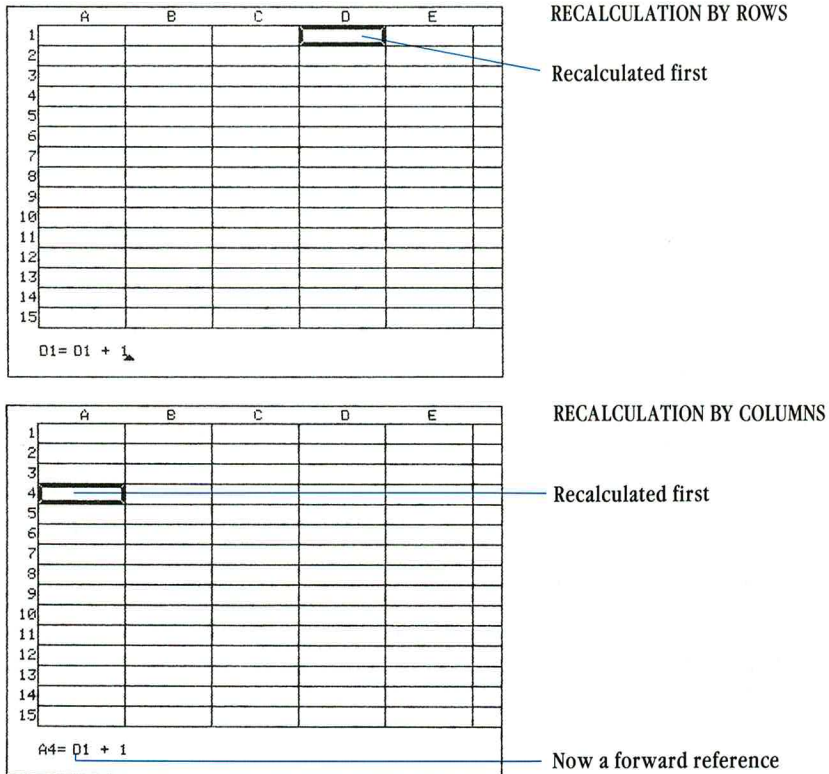
A1 gets the *old* value of E15, the value of E15 before it is calculated. A1 gets the new value of E15 *only* when the worksheet is calculated a second time.

To eliminate errors due to forward references

- ☐ Eliminate the forward references. The cell being defined should have references only to cells above it or to its left.
- ☐ Or, press CODE-RETURN (to calculate) several times, until computed values stop changing.

In Figure 5-4, the definition $A4 = D1 + 1$ isn't a forward reference when calculation proceeds by rows, but it becomes a forward reference if calculation proceeds by columns, since D1 is calculated after A4.

Figure 5-4. Calculation Order and Forward References



Circular References

A circular reference appears in a cell definition that refers to the same cell being defined, e.g., $A1 = A1 + 5$. A circular reference can also be one that refers to another cell that in turn refers back to it, e.g.,

$$B1 = B2 + 1$$

$$B2 = B1 + 1$$

No matter how many times you calculate, the cell values of circular references may never stabilize. Thus, you may have to eliminate them and take another approach in solving your worksheet layout.

Cancel—CODE-ESC The Cancel command (CODE-ESC) lets you exit from GRiDPlan without saving any changes to your file since you last saved it. See Cancel—CODE-ESC in the “Common Commands” chapter for details.

Column Selection—CODE-C The Column Selection command (CODE-B) lets you select an entire column of cells after the message line prompts you to select or make a selection. See Column Selection—CODE-C in the “Common Commands” chapter for details.

NOTE: For GRiDPlan, CODE-C works only with the commands for Erase (CODE-E), Insert (CODE-I), Properties (CODE-P), and Transfer (CODE-T).

Define Cell—CODE- = With the Define Cell command (CODE- =), you specify how GRiDPlan calculates the value of a cell.

To Create a Cell Definition

1. Move the outline to the desired cell and press CODE- = . GRiDPlan displays the definition (if present) of the cell in the definition area at the bottom of the screen.
2. Type in the cell definition following the equal sign in the definition area and press CODE-RETURN (see Calculate—CODE-RETURN, above).

After step 2, GRiDPlan calculates a value for the cell based on the definition you typed in.

You can type or modify a series of definitions without waiting for calculation. After typing each definition, move the cursor to the next cell without pressing CODE-RETURN. To return the cursor to the outline without calculating, press ESC.

Example

Figure 5-5 shows a worksheet for which the definition of cell B6 is $B4/B3 * 100$. Each time you press CODE-RETURN, GRiDPlan divides B4 (net earnings) by B3 (Sales), multiplies the result by 100, and puts the resulting value in cell B6.

Figure 5-5. A Cell Definition

	A	B	C	D	E
1		Actual	Planned	Planned	Planned
2		1983	1984	1985	1986
3	Sales (000)	475000	533000	613000	700000
4	Net Earnings	5900	7000	8200	
5	Net Earnings as a % of				
6	Sales	1.24	1.31	1.34	
7	Average Assets	9.63	10.39	11.59	12.34
8	Average Equity	19.87	21.43	22.82	24.56
9	Market Value Per Share	33.00	39.60	47.52	53.21
10	Book Value Per Share	19.59	21.16	22.85	24.56
11	Sales Per Share	693	778	894	
12	Cash Flow Per Share	13.89	16.35	18.59	21.34
13	Net Earnings Per Share	8.32	1.73	2.01	
14	Dividends Per Share	1.72	2.01	2.35	
15	Price/Earnings Ratio	8.27	7.80	7.80	

Conditional Operator
Cell Coordinate
Arithmetic Operators

$B6 = B4 / B3 * 100$

Cell Definition

Other typical cell definitions include the following:

$$C1 = 250 - 32.137$$

$$C2 = C1 + \text{SIN}(C1) + 32.137$$

$$B7 = A1$$

The next section explains the parts of a cell definition and the rules for defining them.

Cell Definition Parts

Cell definitions can be divided into the following parts: arithmetic operators, expressions, conditional expressions, and logical operators. These parts are discussed in the following sections.

Arithmetic Operators You can use the following arithmetic operators in the cell definition area:

Operator	Meaning
+	addition
-	subtraction
*	multiplication
/	division
^	exponentiation
\, MOD	module divide

Consider a worksheet with the following cell contents:

A
1 3
2 5
3 12

Then

$A1 + A3 = 15$

$A2 \wedge A1 = 125$

$6 * A3 - A1 * A2 = 57$

Expressions The expression you write in the cell definition area can comprise any numeric value, or any cell coordinate, formula that produces a numeric value, or built-in function (see Built-in Functions for a complete list of functions and how they are used). You can connect these elements with the valid arithmetic operators (given under Arithmetic Operators). All of the following are valid expressions:

25.27

$10 + 15.2$

LOG10(100)

SUM(J2..K3)

LOG10(100) + SUM(J2..K3)

Conditional Expression—IF/THEN/ELSE You can also use the IF/THEN/ELSE expression in the cell definition area. This conditional expression places one of two different values in a cell, depending on whether the specified condition is met.

The conditional expression takes the format shown here.

IF (condition) THEN (expression) ELSE (expression)

For *condition*, the conditional operators shown below are valid.

Operator	Meaning
=	equal
>	greater than
<	less than
>=	greater than or equal
<=	less than or equal
<>	not equal

Logical Operators GRiDPlan recognizes the following logical operators:

TRUE (returns a value of - 1)

FALSE (returns a value of 0)

NOT

AND

OR

XOR

In GRiDPlan, you can use logical operators to perform the same logical (Boolean) operations as you can in BASIC and other high-level programming languages.

Examples Consider a worksheet with the following cell contents:

	A
1	5
2	10
3	10
4	1
5	

The following conditional expressions in a cell definition for A5 would produce the indicated results:

Cell Definition for A5	Result
IF A2 = A3 THEN A1 ELSE 0	A5 = 5
IF A2 < A3 THEN A1 ELSE 0	A5 = 0
IF A2 > A3 THEN A1 ELSE 0	A5 = 0
IF A2 <= A3 THEN A1 ELSE 0	A5 = 5
IF A2 >= A3 THEN A1 ELSE 0	A5 = 5
IF A1 + A3 = A1 + A4 THEN A1 ELSE 0	A5 = 0
IF A2 = 10 AND A4 = 1 THEN A1 ELSE 0	A5 = 5
IF A2 = 5 OR A4 = 1 THEN A1 ELSE 0	A5 = 5
IF NOT (A2 = 0) THEN A1 ELSE 0	A5 = 5

Duplicate—CODE-D The Duplicate (CODE-D) command copies one or more cells and their definitions from one location to another. The original selection remains intact. The results depend on how you select the data, as described below.

- | | |
|--|---|
| You select
part of a cell. | Selected characters are inserted at the cursor position in the target cell. |
| You select
one or more
entire cells. | Selected cells replace the contents of the target cells. If the selected cells have definitions, they become the definitions of the target cells. |

The Duplicate command for GRiDPlan differs from that of GRiDPlot or GRiDFile in the following ways:

- ☐ The command not only duplicates the contents of cells (as in GRiDPlot and GRiDPlan), but it also duplicates any cell definitions present in the source cells.
 - ☐ You can duplicate a cell or group of cells to multiple target locations
- Before pressing CODE-D, move the cell outline to the cell, row, or column you wish to duplicate. Press CODE-D and select the cell(s) to be duplicated. If you are duplicating characters within a cell, move the cursor just to the right or left of those characters before pressing CODE-D and selecting.

After you select the data to be duplicated and confirm, the following message appears:

Duplicate: Point and confirm, or CODE-B for range.

When you see this message, choose whether to duplicate the cell(s) to one target location or to multiple target locations. To duplicate the cell(s) to one target location, move the outline to the starting target cell and confirm.

To duplicate the cell(s) to multiple target locations, move the outline to the starting target cell and press CODE-B. Then, select one or more additional target cells.

After you select the target cells and confirm, the Duplicate Cell form (Figure 5-6) appears; this form appears *only* if cell definitions exist for one or more

of the source cells. The choices in the form determine how the cell definitions appear after the duplication, as described below.

Figure 5-6. *The Duplicate Cell Form*

	A	B	C	D	E
16	Period	Amount			
17					
18	0.00	-15000.00			
19	1.00	500.00			
20	2.00	550.00			
21	3.00	600.00			
22	4.00	20000.00			
23					
24		20.15			
25					
26					
27					
28					

☒ Relative
 ☐ Fixed
 ☐ All relative
 ☐ All fixed

Highlighted cell reference is

B24= NPUC(518..B22,0.1)

Duplicate Fill in form and confirm

Initial setting in the Duplicate Cell form is Relative. Choices are described below.

- Relative** After the Duplication, cell coordinates in the duplicated cell definitions are changed to correspond to the location of the target cell.
- Fixed** After the Duplication, cell coordinates in the duplicated cell definitions are the same as they were in the source cell(s).
 You are prompted for each cell coordinate in the source-cell definitions for both the Relative and Fixed settings; you can thus mix Fixed and Relative coordinates for the target definitions.
- All relative** All of the duplicated cell definitions are changed so that they correspond to the location of the target cells; you aren't prompted for individual coordinates.
- All fixed** All of the duplicated cell definitions are duplicated exactly as they are in the source cells; you aren't prompted for individual coordinates.

The worksheet you see below is in its original form before duplications.

Cell Definition
for A1

	A	B	C	D	E
1	4.00				
2	2.00	3.00	4.00	5.00	6.00
3	2.00	3.00	4.00	5.00	6.00
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

A1= A2+A3

The worksheet below illustrates the results of duplicating A1 to B1. The All Fixed setting was selected on the Duplicate Cell form. Note that the cell definition for B1 is the same as that for A1.

Fixed Duplication
of Cell A1

	A	B	C	D	E
1	4.00	4.00			
2	2.00	3.00	4.00	5.00	6.00
3	2.00	3.00	4.00	5.00	6.00
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

B1= A2+A3

Duplicate completed

The worksheet below illustrates the results of duplicating A1 to B1. The All Relative setting was selected on the Duplicate Cell form. Note that the cell coordinates in the cell definition for B1 have been changed to correspond to those for A1.

Relative Duplication
of Cell A1

	A	B	C	D	E
1	4.00	6.00			
2	2.00	3.00	4.00	5.00	6.00
3	2.00	3.00	4.00	5.00	6.00
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

B1=B2+B3
Duplicate completed

The worksheet below illustrates the process of duplicating into a range of cells. Here is the sequence of events in the duplication.

- ☐ After selecting A1 to be duplicated, CODE-B was pressed, and cells B1, C1, D1, and E1 were selected as target cells.
- ☐ The selection was confirmed and the Duplicate Cell form appeared.
- ☐ The All Relative item in the Duplicate Cell form was selected and confirmed. The cell definition of A1 was changed to correspond to each target cell and then duplicated into the cell definition area of each. Note the new value of the target cells after the duplication; the value of each cell is now the sum of the two cells below it, just as that for A1, the source cell.

The cell definition of
A1 will be changed
relative to each target
cell and duplicated.

	A	B	C	D	E
1	4.00				
2	2.00	3.00	4.00	5.00	6.00
3	2.00	3.00	4.00	5.00	6.00
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

E1
Duplicate: Select range of destinations & confirm

The last worksheet illustrates the results of confirming the CODE-B target cells.

	A	B	C	D	E
1	4.00	6.00	8.00	10.00	12.00
2	2.00	3.00	4.00	5.00	6.00
3	2.00	3.00	4.00	5.00	6.00
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

E1= E2+E3
Duplicate completed

Erase—CODE-E The Erase Cells or Text command (CODE-E) lets you erase data within your current file. See the Erase Cells or Text—CODE-E section in the “Common Commands” chapter for details.

Headings (Worksheet)—CODE-H The Headings command (CODE-H) lets you lock columns and/or rows in place, simultaneously letting you edit data and scroll in the other columns and rows of your worksheet. To lock columns and/or rows in place, move the cell outline to the column at the right of, or to the row below, the other columns and/or rows you want to lock. Then press CODE-H; the Headings menu appears (Figure 5-7).

Figure 5-7. *The Headings Menu*

	A	B	C	D	E
1		Actual	Planned	Planned	Plan
2		1983	1984	1985	19
3	Sales (\$000)	475000	533000	613000	70
4	Net Earnings	5900	7000	8200	
5	Net Earnings as a % of				
6	Sales	1.24	1.31	1.34	
7	Average Assets	9.63	10.39	11.59	1
8	Average Equity	19.87	21.43	22.82	2
9	Market Value Per Share	33.00	39.60	47.52	5
10	Book Value Per Share	19.59	21.16	22.85	2
11	Sales Per Share	693	778	894	
12	Cash Flow Per Share	13.89	16.35	18.59	2
13	Net Earnings Per Share	9.22	1.77	2.01	

Lock headings to the left of this column
Lock headings above this row
Lock headings above and to the left
Release headings
Headings: Select item and confirm

The sections below show the results of selecting each of the items in the Headings menu. The areas in the shaded portions remain in place as you edit and scroll in the unshaded areas.

Lock Headings to the Left of This Column

Below you see an example of headings locked to the left of a column.

	A	B	C	D
1		Actual	Planned	Planned
2		1983	1984	1985
3	Sales (<000>)	425000	533000	613000
4	Net Earnings	5900	7000	8200
5	Net Earnings as a % of			
6	Sales	1.24	1.31	1.34
7	Average Assets	9.63	10.39	11.59
8	Average Equity	19.87	21.43	22.82
9	Market Value Per Share	33.00	39.60	47.52
10	Book Value Per Share	19.59	21.16	22.85
11	Sales Per Share	693	778	894
12	Cash Flow Per Share	13.89	16.35	18.59
13	Net Earnings Per Share	8.32	1.73	2.01
14	Dividends Per Share	1.72	2.01	2.35
15	Price/Earnings Ratio	8.27	7.80	7.80
	83			

Locked

Lock Headings Above This Row

The example below shows headings locked above a row.

	A	B	C	D
1		Actual	Planned	Planned
2		1983	1984	1985
3	Sales (<000>)	425000	533000	613000
4	Net Earnings	5900	7000	8200
5	Net Earnings as a % of			
6	Sales	1.24	1.31	1.34
7	Average Assets	9.63	10.39	11.59
8	Average Equity	19.87	21.43	22.82
9	Market Value Per Share	33.00	39.60	47.52
10	Book Value Per Share	19.59	21.16	22.85
11	Sales Per Share	693	778	894
12	Cash Flow Per Share	13.89	16.35	18.59
13	Net Earnings Per Share	8.32	1.73	2.01
14	Dividends Per Share	1.72	2.01	2.35
15	Price/Earnings Ratio	8.27	7.80	7.80
	83			

Locked

Lock Headings Above and to the Left

Below is an example of headings locked above and to the left.

	A	B	C	D	
1		Actual	Planned	Planned	Plan
2		1983	1984	1985	19
3	Sales (<000)	475000	533000	613000	70
4	Net Earnings	5900	7000	8200	
5	Net Earnings as a % of				
6	Sales	1.24	1.31	1.34	
7	Average Assets	9.63	10.39	11.59	1
8	Average Equity	19.87	21.43	22.82	2
9	Market Value Per Share	33.00	39.60	47.52	5
10	Book Value Per Share	19.59	21.16	22.85	2
11	Sales Per Share	693	778	894	
12	Cash Flow Per Share	13.89	16.35	18.59	2
13	Net Earnings Per Share	8.32	1.73	2.01	
14	Dividends Per Share	1.72	2.01	2.35	
15	Price/Earnings Ratio	8.27	7.80	7.80	
	B3				

Locked

Release All Headings

Release All Headings restores the worksheet to its original state, allowing you to scroll and edit in all columns and rows.

Insert—CODE-I The Insert command (CODE-I) lets you add new rows or columns to your current file. See the Insert—CODE-I section in the “Common Commands” chapter for details.

Jump to Cell—CODE-J The Jump command (CODE-J) allows you to move directly to a cell from the present cursor position. When you press CODE-J, the Jump form appears. Once you type in the cell coordinate (C7, for example) and confirm, the outline appears around the desired cell, and the appropriate cell definition (if present) appears in the cell definition area.

Move—CODE-M The Move command (CODE-M) lets you move data within your file to any target area within the same file. See Move Cells or Text—CODE-M in the “Common Commands” chapter for details.

NOTE: Although Column Selection (CODE-C) and Row Selection (CODE-R) can be used for the Move command in GRiDFile and GRiDPlot, they cannot be used with this command in GRiDPlan.

Options (Worksheet)—CODE-O The Options command (CODE-O) displays the Options form on your screen (Figure 5-8). Use the form to define cell characteristics that you don't set individually in the Properties form; see Properties (Worksheet)—CODE-P.

Figure 5-8. *The Options Form with Initial Settings*

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					

Left Center **Right**

Standard alignment: **Right**

Standard format: **\$**

Standard column width: **8**

Show grid?: **Yes**

Evaluation order: **By rows**

Precision: **15-digit Real**

Current typeface: **System-wide**

Options: Fill in form and confirm

The sections that follow explain various items in the Options form in alphabetical order.

Current Typeface

By changing the Current Typeface item, you can increase the amount of data displayed on your screen. See the Options—CODE-O section in the “Common Commands” chapter for details.

Evaluation Order

The Evaluation Order option determines the sequence in which GRiDPlan calculates the value of cells.

Initial setting is By Rows. Choices are described below.

- By Columns** The cells are calculated beginning with the first column, from top to bottom, and continuing through the remaining columns.
- By Rows** The cells are calculated beginning with the first row, from left to right, and continuing through the remaining rows.

Changing the Evaluation Order option can create forward references; you may have to use the Calculate command several times before arriving at an accurate value. See the Calculate—CODE-RETURN section in this chapter for information on forward reference.

Precision

The Precision option determines the number of decimal places that GRiD-Plan uses to save numeric values; it applies to all cells in the worksheet and cannot be changed for individual cells.

Precision and Memory Management Reducing the level of precision decreases the amount of memory that the worksheet occupies. This helps maximize available memory and minimizes Out of Memory conditions.

Set Precision to 15-digit Real until the worksheet runs out of memory; then enlarge the worksheet by lowering the Precision setting. See Appendix I.

Precision Choices Initial setting is 15-digit Real. Choices are described below.

- | | |
|----------------|--|
| 6-digit Real | Precision level is six digits, with a two-digit exponent between -37 and $+37$. This is the typical precision for computations combining dollar precision (such as \$1000.24) and high-precision decimals (such as an interest rate of 0.01 or 0.0001). This level of precision retains full accuracy for integers between -999999 and 999999 or for dollar amounts between -9999.99 and 9999.99 . Numbers larger than these are accurate only in their first six digits. |
| 15-digit Real | <p>The precision level is fifteen digits, with a three-digit exponent between -308 and $+307$. This is precise enough for almost all applications. All intermediate computations within a single cell definition are kept at this level of precision.</p> <p>Use this setting to obtain very high precision for decimals, or to compute very large amounts, and to make scientific computations. This level of precision is accurate for integers from -999999999999999 to 999999999999999, inclusive, and for dollar amounts from -999999999999999.99 to 999999999999999.99. Numbers larger than these are accurate only in their first fifteen digits.</p> |
| 7-digit Dollar | The precision level is seven digits of integer accuracy and two digits of decimal accuracy. The integer values are kept at full accuracy, and fractions are rounded to the nearest |

cent. This precision level is useful for business calculations in which higher precision levels aren't needed or desired. This level of precision is accurate for integers from - 21474836.47 to 21474836.47, inclusive.

**9-digit
Integer**

The precision level is nine integer digits but no decimal places. These integers are kept at full accuracy. This level of precision is useful for worksheets that manipulate large numbers but no decimals. This setting allows you to represent integers in the range of -2147483647 to 2147483647, inclusive.

NOTE: At this level of precision, all fractions are rounded to integers. For example, .5 rounds to 1.

Show Grid

The Show Grid option determines whether the lines between cells are shown on the screen.

Initial setting is Yes. Choices are Yes, No.

Standard Alignment

The Standard Alignment item lets you either center your data in a cell, or align it with the left or right margin. See Standard Alignment under the Options—CODE-O section in the “Common Commands” chapter for details.

Standard Column Width

The Standard Column Width item lets you either increase or decrease the width of a column. See Standard Column Width under the Options—CODE-O section in the “Common Commands” chapter for details.

Standard Format

The Standard Format item lets you determine where decimal points are to appear in your numeric data. See Standard Format under the Options—CODE-O section in the “Common Commands” chapter for details.

Pointer—CODE-= The Pointer command (CODE-=) lets you enter a cell range automatically in a built-in function. (The use of cell ranges in built-in functions is described in the Built-In Functions section earlier in this chapter.) By using the procedure described below, you avoid typing in a cell range manually.

To Enter a Cell Range Automatically

1. Move the outline to the cell you want to define, then press CODE-= to enter the cell definition area.
2. Type in the part of the definition up to the first cell coordinate of the range. For example, if you intended to use the Sum built-in function, you would enter the characters *Sum*.
3. Press CODE-= again and move the outline to the first cell in the range.
4. Press CODE-B.
5. Move the outline to the last cell in the range.
6. Type in the rest of the cell definition and confirm.

Properties (Worksheet)—CODE-P The Properties command (CODE-P) allows you to assign attributes to one or more cells in a worksheet. With CODE-P, you change the properties assigned in the Options form.

To Set Cell Properties in a Worksheet

1. Move the cursor to any one of the cell(s) you wish to change.
2. Press CODE-P; the cell containing the cursor is highlighted.
3. Select one of the following combinations of cells:
 - ☐ One cell. Confirm and the highlighted cell is selected.
 - ☐ Two or more contiguous cells. Select the desired cells with the Arrow keys and confirm.
 - ☐ One or more columns of cells. Press CODE-C, select additional columns if desired, then CODE-RETURN.
 - ☐ One or more rows of cells. Press CODE-R, select additional rows if desired, then CODE-RETURN.

4. The following form appears after you confirm:

Figure 5-9. *The Properties Form*

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Left Center Right **Standard** Don't change

Alignment

Format

Column width

Properties: Fill in form and confirm

Some properties have Standard or Don't Change for a choice. If you choose Standard, the corresponding setting in the Option form applies to the cell(s).

The Don't Change choice allows you to set one property for a block, row, or column of cells without changing other properties individually set for the cells. (This is similar to the Don't Change choice for GRiDPlot. An example of using Don't Change with GRiDPlot is given in the Graph Appearance section in Appendix E.)

You save memory space by selecting entire rows or columns, rather than groups of cells, when setting new properties.

5. Confirm when the property settings are the way you want them.

The following sections describe various items in the Property form.

Alignment

The Alignment item lets you either center your data in a cell, or align it with the left or right margin. The new setting overrides the setting in the Standard Alignment item of the Options form. See Alignment under the Properties—CODE-P section in the “Common Commands” chapter for details.

Column Width

The Column Width item lets you either increase or decrease the width of a column. The new setting overrides the setting in the Standard Column Width item of the Options form. See Column Width under the Properties—CODE-P section in the “Common Commands” chapter for details.

Format

The Format item lets you determine where decimal points are to appear in your numeric data. The new setting overrides the setting in the Standard Format item of the Options form. See Format under the Properties—CODE-P section in the “Common Commands” chapter for details.

Quit—CODE-Q The Quit command (CODE-Q) lets you exit from your GRiDPlan file; any changes you’ve made to the file since you last saved it are saved automatically when you exit. See Quit—CODE-Q in the “Common Commands” chapter for details.

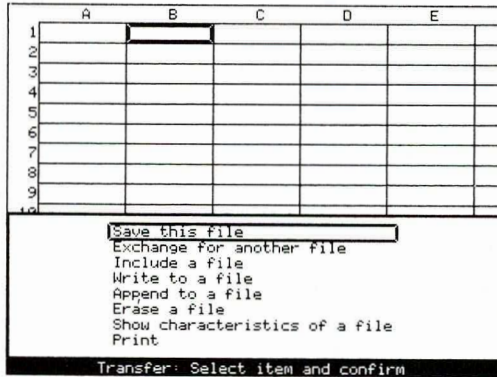
Recalculate—CODE-RETURN See the Calculate—CODE-RETURN section earlier in this chapter.

Row Selection—CODE-R Row Selection (CODE-R) lets you select an entire row of cells after the message line prompts you to select or make a selection. See Row Selection—CODE-R in the “Common Commands” chapter for details.

For GRiDPlan, CODE-R works only with the commands for Erase (CODE-E), Insert (CODE-I), Properties (CODE-P), and Transfer (CODE-T).

Transfer—CODE-T The Transfer command (CODE-T) causes the Transfer menu to appear (Figure 5-10).

Figure 5-10. *The Transfer Menu*

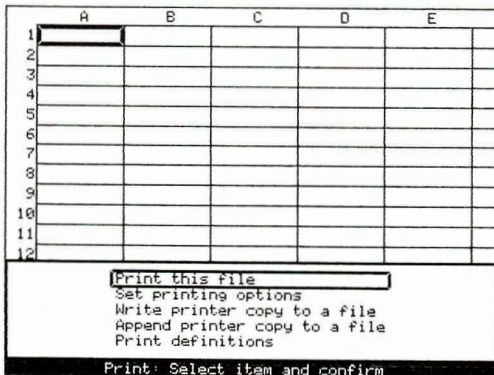


All of the items in Figure 5-10 except Print are described in alphabetical order under Transfer—CODE-T in the “Common Commands” chapter.

Print

When you select Print and confirm, the Print menu appears (Figure 5-11).

Figure 5-11. *The Print Menu*



The items in Figure 5-11 are described in alphabetical order under Transfer (Print)—CODE-T in the “Common Commands” chapter.

Usage—CODE-U The Usage command provides information on the amount of free memory and storage available to your programs and files. See Usage—CODE-U in the “Common Commands” chapter for details.

Views—CODE-V The Views command (CODE-V) lets you display two or more portions or *views* of your worksheet on the screen at the same time. You can move among the different views, entering and editing data in each one.

A worksheet with four different views is shown in Figure 5-12.

Figure 5-12. *A Worksheet with Four Views*

	B	C	D	E	F
1	Actual	Planned	Planned	Planned	Planned
2	1983	1984	1985	1986	1987
3	475000	533000	613000	700000	794000
4	5900	7000	8200	9500	10900
	B	C	D	E	F
6	1.24	1.31	1.34	1.36	1.37
7	9.63	10.39	11.59	12.78	13.97
8	19.87	21.43	22.82	24.03	25.07
	A		E	F	G
7	Average Assets		12.78	13.97	
8	Average Equity		24.03	25.07	
9	Market Value Per		57.02	68.43	
10	Book Value Per Sh		24.68	26.65	
11	Sales Per Share		1021	1158	
12	Cash Flow Per Sh				

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To obtain a split view, move the outline below the row or to the right of the column you want to split. Press CODE-V; the Views menu appears (Figure 5-13).

Figure 5-13. *The Views Menu*

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Unsynchronized: Split view at left of this column
Split view above this row

Synchronized: Split view at left of this column
Split view above this row

Show only one view

Views: Select item and confirm

The following two sections explain the results of the unsynchronized and synchronized settings on the menu; the last section explains how to restore your worksheet's normal display.

Unsynchronized Settings

For the item Split View at Left of This Column, as you scroll horizontally or vertically in one view, the opposite view remains static. The example below shows a split view of columns.

Press CTRL-← to
move outline
to left view.

A		B	C	D
1		Actual	Planned	Planned
2		1983	1984	1985
3	Sales (000)	475000	533000	613000
4	Net Earnings	5900	7000	8200
5	Net Earnings as a % of			
6	Sales	1.24	1.31	1.34
7	Average Assets	9.63	10.39	11.59
8	Average Equity	19.87	21.43	22.82
9	Market Value Per Share	33.00	39.60	47.52
10	Book Value Per Share	19.59	21.16	22.85
11	Sales Per Share	693	778	894
12	Cash Flow Per Share	13.89	16.35	18.59
13	Net Earnings Per Share	8.32	1.73	2.01
14	Dividends Per Share	1.72	2.01	2.35
15	Price/Earnings Ratio	8.27	7.80	7.80

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To enter or edit data in different views, press CTRL-← or CTRL-→ to move between vertical views of the screen; press CTRL-↑ or CTRL-↓ to move between horizontal views.

For the item Split View Above This Row, as you scroll in the upper or lower view, the opposite view remains static. The example below shows a split view of rows.

Press CTRL-↑ to
move outline
to top view.

A		B	C	D	E
1		Actual	Planned	Planned	Plan
2		1983	1984	1985	19
3	Sales (000)	475000	533000	613000	70
4	Net Earnings	5900	7000	8200	
5	Net Earnings as a % of				
6	Sales	1.24	1.31	1.34	
7	Average Assets	9.63	10.39	11.59	1
8	Average Equity	19.87	21.43	22.82	2
9	Market Value Per Share	33.00	39.60	47.52	5
10	Book Value Per Share	19.59	21.16	22.85	2
11	Sales Per Share	693	778	894	
12	Cash Flow Per Share	13.89	16.35	18.59	2
13	Net Earnings Per Share	8.32	1.73	2.01	
14	Dividends Per Share	1.72	2.01	2.35	

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Synchronized Settings

For the items Split View at Left of This Column and Split View Above This Row, both views move in synchronization with each other as you scroll.

Show Only One View

Use the item Show Only One View to restore your worksheet's normal display from a split-view setting.