

GRID IRON

Continuing our investigation of spreadsheet modelling, we now examine some of the many advanced features found in Multiplan, a comprehensive electronic worksheet from Microsoft for the Commodore 64.

Microsoft incorporated many advanced ideas, developed from earlier spreadsheet packages, into its first spreadsheet program, Multiplan. These include the ability to act on groups of cells that are described by name; to sort a group of entries according to a specified criterion; to split screens, allowing different areas of the spreadsheet to be viewed simultaneously; to search quickly through information held in table form and then output a requested value; and to perform IF...THEN conditional constructs, among others. Originally available only on high-level computers such as the IBM PC and Apple II, Multiplan has recently become available on the Commodore 64.

The model we will build with Multiplan simplifies the task of keeping track of statistics. The data we use relates to American football, but the structure can be adapted to other sports.

Once Multiplan is loaded, a standard format worksheet of 63 columns and 255 rows is displayed. Rows and columns are both numbered, so the home cell, in the upper left-hand corner, is referred to as cell R1C1 — for Row 1 Column 1. A menu of command options appears at the bottom of the screen, with a cursor highlighting the first choice, Alpha. Multiplan menu commands can be chosen by pressing the Space bar to move the cursor to the desired command and pressing Return, or by typing the first letter of the command.

Selecting a command often causes a sub-menu to be displayed, offering a wide variety of options for formatting data, memory management, and so on. Pressing a letter key accesses a command, so you have to type A for Alpha before entering text. Numbers can be entered directly, but formulae must be preceded by a plus (+) or equals (=) sign.

The first two rows of the worksheet hold titles. For convenience, we have formatted the cells from R1C1 to R2C5 for continuous text, which allows text to extend beyond cell boundaries. This is accomplished by typing:

(Format) C(ells) R1C1:R2C5

then placing the cursor over the word Cont and pressing Return. The colon is used to indicate a range of cells. Some columns have been widened or shortened to accommodate their entries.

There are two main portions of the worksheet:

one holds information for a specific team over a nine-week period, and the other is a table of the won/lost records for all the teams in the same 'conference' (see the American Football box for an explanation of terms). Once the skeleton of the model has been constructed, much of the weekly data will have to be entered by hand, with just a few formulae to keep running totals as the season goes on.

League Records

TEAM	POINTS SCORED	POINTS ALLOWED	WIN	LOSS
CLEVELAND				
DENVER				
INDIANAPOLIS				
KANSAS CITY				
LA JEWELL				
MIAMI				
NEW ENGLAND				
PITTSBURGH				
SAN DIEGO				
SEATTLE				
TAMPA				
WASHINGTON				

Team Performance Record

WEEK	YDS	RUSH	PASS	FTS
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

The first portion of the worksheet is a table. The totals in the table must be updated each week, after the teams have played. By storing the information in a table, we can take advantage of one of Multiplan's advanced features: the SORT facility. We have entered the team names, categories and data as shown. The initial ordering of the teams is based on current standings in the league. However, the table can be sorted by any of the categories stored. Multiplan will sort a specified range of rows in a given column, in ascending or descending numerical order. Text is, of course, sorted alphabetically.

As an example of how the SORT function works, we will rearrange the data shown by team name in alphabetical order. After typing S for SORT, Multiplan displays the following:

**SORT by column: — between rows: — and: —
order: > <**

IAN MCKINNELL