

# INTEGRATION—THE FACTS

INTER-SHEET and INTER-CHART are the first of a new generation of integrated packages for the BBC Micro. They are more powerful and much easier to use than any other similar application program.

The ROM-LINK concept is unique to this range of programs; it ensures that all ROM-LINK programs are totally compatible and truly integrated.

The word 'integrated' has been much abused recently. In our eyes 'integrated' should mean that all programs in the range should share a common data format, that it should be possible to transfer data directly from one program to another (not just by saving and loading) and it should be possible to have multiple programs resident in the machine at once. The integrated programs in the ROM-LINK series are the only ones that can do this.

The ROM-LINK system allows up to 16 packages to be resident in memory at the same time. It makes no distinction between any of the packages, so that you could have up to 16 separate spreadsheets stored in memory or (more usefully) a few spreadsheets, a few graphs and a couple of documents being word processed. It is a simple matter to transfer data from any package into the one in current use, and because the packages are resident in memory, the data transfer is very fast. It is also possible to use data from other packages without actually transferring, thereby saving memory.

Put simply, this means that INTER-SHEET can use multiple spreadsheets and use data from one sheet in another sheet, and INTER-CHART can plot graphs using data taken directly from a spreadsheet. When INTER-WORD and INTER-BASE are available then these will be able to use data from the other packages in the same way.

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## INTER-CHART

The chart and graph plotting program

This general purpose graph and chart plotting program allows the user to display data in the most easily understood manner—graphically.

Two quite distinct sorts of graphs are catered for. 'Labelled' graphs that always have fixed increments on the X axis like yearly sales figures, and 'scaled' or scatter graphs. These allow both the X and Y values to be specified.



Data can be entered into the system from three distinct sources: Typing at the keyboard is the simplest method, but data can be read from ASCII files produced by WORDWISE, VIEW or a programming language such as BASIC. Because INTER-CHART is ROM-LINK compatible it can also import its data directly from other ROM-LINK packages such as INTER-SHEET.

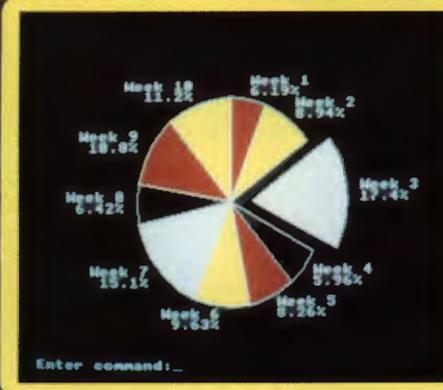
Once the data has been entered a straightforward editor allows any previous data to be altered or new values to be inserted at any position.

**TEXT WITH GRAPHS:** Labels are normally printed along the X-axis for lines and bars. Pie charts have their labels and values printed around the chart. These may be optionally switched off. With a pie chart the values may be replaced with a percentage figure. All graph displays can have additional labels or messages printed at any position on the screen using a powerful label editor. This allows headings to be easily added to graphs. These labels are stored with each graph when saved.

**COMPATIBLE WITH:** All shadow RAM boards and the 6502 2nd processor. However the ROM-LINK facilities are not available when using a 2nd proc., these include multiple INTER-CHARTS and direct data transfer from other ROM-LINK programs.

**PRICE: £36.80 incl.**

INTER-CHART allows up to 16 graphs to be held in memory at the same time as one 'package'. Each graph is named and, once entered, any named graph can be selected from a simple menu display.



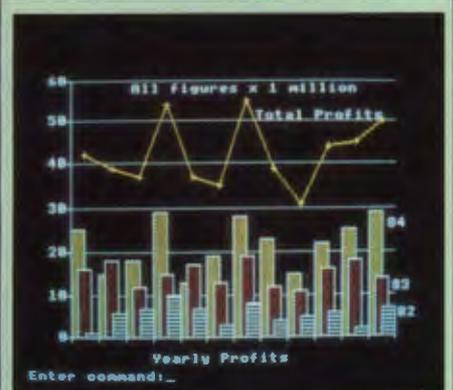
**SCREEN DISPLAY:** The graphs can be displayed in any of the BBC's graphics modes. The colours of the bars, lines or segments can be altered in a simple table of colours. This also allows special striped colour combinations and for bar charts a variety of cross hatching styles is available. It is also possible to use a VDU19 statement to alter the colour palette.

**DISPLAY OPTIONS:** Where appropriate (not pies, etc) either axis can be displayed as a log or linear scale, and there is an option to display dotted graduation lines on either axis. Pie segments and bars can be highlighted (segment 'pulled out').

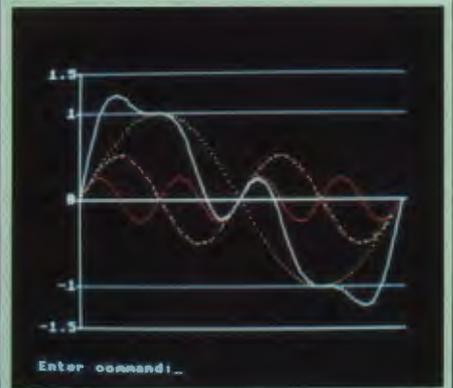
**PRINTERS:** INTER-CHART has a built in screen dump routine for all EPSON matrix printers and compatibles. It is possible to use other screen dump routines from within (or external to) INTER-CHART for other printers or plotters.

**FILING OPERATIONS:** Any named graph can be saved or loaded individually to disc or cassette, or all graphs can be saved together in one file.

**GRAPH TYPES:** INTER-CHART supports the three main graph types, lines, bar charts and pie charts. Scatter graphs are also catered for and can be displayed as points or lines.



**SCALING:** INTER-CHART automatically scales the graph display to cover the full range of values entered. INTER-CHART can cope with numbers in the range 2E-39 to 2E+38. It is possible however to force the scale independently on the X and Y axis to show any specified range, including the option for log scales on either or both axes.



## FUTURE RELEASES

Both INTER-SHEET and INTER-CHART are available now. INTER-BASE and INTER-WORD are under development at the moment, and are likely to be released in early 1986. Both are fully ROM-LINK compatible so that they will be totally integrated with the others in the range.

INTER-WORD is an 80 and 105 column word processor (not 40 columns). This will be a 'WYSIWYG' word processor showing the page on screen exactly as it would appear on the page, including page breaks, headings/footings and centered lines, justification, margins, etc. It will also handle 'continuous' documents on disc up to the capacity of your filing system.

Like all of our products this will be smooth and very fast in operation, and of course very easy to use. Editing operations will be similar to WORDWISE but this is not totally WORDWISE compatible. There will be an exchange arrangement available to WORDWISE owners—more details available nearer the release date.

**AVAILABILITY:** Winter 85/86  
**PRICE:** Approx. £49.00 + VAT

INTER-BASE will simply be the most powerful database available. This will operate with all disc filing systems and have a very large data handling capacity. It will contain a powerful BASIC-like programming language with full string and mathematical operations.

This will work at 2 levels, a simple user interface will allow card-index like operations but, via the programming language, the system can be easily tailored to the individual needs. Up to 250 fields per record, each field up to 32K long. This would enable the user to store complete documents in the database. Variable length fields and records.

**AVAILABILITY:** Early 1986  
**PRICE:** Approx. £59.00 + VAT

# INTER-SHEET

The electronic spreadsheet program

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**FILING OPERATIONS:** Load and Save entire sheet. Save specified part of sheet. Load part of sheet to any sheet position. Spool sheet to file. Save all ROM-LINK packages. Load all ROM-LINK packages.

**IMPORT/EXPORT:** Export any part of sheet for use in word processors. Import sheets created on word processors. Import data directly from other ROM-LINK packages.

**PRINTING:** Print all or specified part of worksheet. Print with or without sheet borders. Print with or without held lines (windowing). Sheets titles can be printed and control codes can be sent to the printer. Print all formulae. The pound sign code can be altered to a sequence of codes for different printers.

**AUTO-STEP:** Whenever an entry has been made the cursor can automatically move one box up, down, right or left.

**CELL DISPLAY:** Any box (cell) can be displayed left or right justified. Labels can also be centered. Numbers may be displayed in three formats, exponent, fixed or general format. The number of digits is controllable from 0 to 10.

**LOCKING:** Any box, row or column or all boxes can be locked to prevent accidental alteration.

**LABELS:** Formulae can refer to other boxes in the normal way (e.g. A1 or G5) but can also refer to boxes in a much more meaningful way via labels (e.g. JAN SALES), the box referred to is at the intersection of the column and row of the specified labels. Labels are not restricted to being placed on the borders of the sheet only.

**REPLICATION:** Any box or area can be copied to any other box or area on the sheet, giving total flexibility. The replication is very fast—see comparisons. Single key operations for inserting or deleting a row or column. Formulae can automatically be altered, if desired, relative to their new position.

**OPTIONS:** A variety of spreadsheet defaults can be altered, such as the default box justification, number format, sheet area. Screen colours are easily alterable.

**WINDOWING:** A unique system that allows any row or column (or multiple rows and columns) of the sheet to appear at a fixed position on screen, still allowing the sheet to scroll underneath. For easier to use and more flexible than other windowing systems.

The first published review of INTER-SHEET says:

"... It offers higher capacities than any previous Beeb spreadsheet, but it runs significantly faster than Lotus 1-2-3 and Symphony on the IBM-PC."

"INTER-SHEET is quicker, has more features and is cheaper than either of its competitors. If the remainder of the "Inter" series are as good as this Acornsoft and the rest better look to their laurels. Software of such quality can only make the Beeb even more attractive as a business machine."

Gordon Taylor—A&B Computing Sept. 85

## PRESS

**COMPATIBLE WITH:** Shadow RAM boards such as the Aries B20 and Watford electronics 32K RAM board. Because the ROM-LINK system needs to switch ROMs INTER-SHEET is not compatible with the 2nd processor, although a HI version of INTER-SHEET will be available for the 6502 2nd processor (No ROM-LINK facilities and no 105 screen mode). INTER-SHEET is supplied in 2 ROMs, but if you only have 1 socket then only the ROM-LINK facilities are lost (multiple spreadsheets etc).

For the BBC MICRO  
Available from all good software  
dealers or directly from ourselves

INTER-SHEET and the rest of the ROM-LINK series belong to the 2nd generation of application programs for the BBC Micro. They are larger, more powerful and easier to use than any previous products of this sort.



INTER-SHEET offers many quite unique features.

- 1 The fastest spreadsheet—see comparison box
- 2 The largest capacity—see comparison box
- 3 40, 80 and special 105 column screen mode
- 4 Multiple spreadsheets in memory at once
- 5 Data transfer between sheets in memory
- 6 Data transfer to and from word processors such as WORDWISE and VIEW
- 7 Menu operation and fully prompting commands
- 8 Complete documentation. 2 manuals, an introduction and a reference, are supplied along with a quick reference card.
- 9 Will integrate directly with INTER-CHART and other ROM-LINK compatible products.

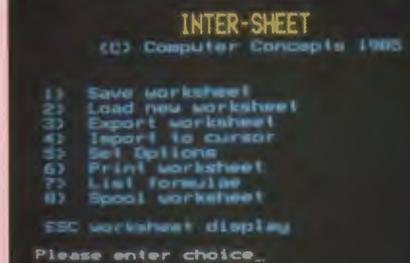
Some further facts about INTER-SHEET:

**CURSOR MOVEMENT:** WORDWISE-like cursor movement allowing the user to move left or right one box, one screenful or to the extremes of the used sheet area. A further command allows immediate movement to any specified box.

**SCREEN DISPLAY:** Single key switch for 40, 80 and a special 105 column screen mode. This allows much more of the spreadsheet to be visible on screen at once. The 105 column mode requires no special monitors—if you can read the 80 column mode then the 105 will work perfectly well.

**SHEET SIZE:** 64 columns by 255 rows. Each box can hold up to 80 characters. Column widths are variable up to 31 characters wide. There is no gap between boxes so labels can continue across boxes.

**MATHS:** A full range of maths functions is included. There are also additional special spreadsheet functions such as AVERAGE, COUNT, IF..., LOOKUP, MAX, MIN, SUM, BOX and SQRS (sum of the squares). Numbers can range from 2E-39 to 2E+38 and can be printed to 10 significant figures.



## ROM BASED SOFTWARE FOR THE BBC MICRO

## Spreadsheet comparisons

| Times in seconds                       | VIEW-SHEET | ULTRA-CALC 2 | INTER-SHEET |
|--|------------|--------------|-------------|
| Replicate SIN(PI) into boxes A1 to Z50 | 66         | 65           | 7           |
| Recalculate the above                  | 28         | 33           | 5           |
| Number of bytes free with above sheet  | 4664       | 1415         | 8400        |
| Price (Exclusive of VAT)               | £52.00     | £69.13       | £49.00      |

PRICE: £56.35 incl.



# Computer Concepts

Gaddesden Place, Hemel Hempstead,  
Herts HP2 6EX (0442) 63933

