



All Molimerx software for the IBM PC is distributed on single sided, double density 40 track formatted disks. Unless otherwise stated, programs are compatible with a monochrome monitor.

SUPERZAP - THE DELUXE DISK INVESTIGATION AND EDITING PROGRAM

Superzap is a highly sophisticated disk access and modification program. It is compatible with all known IBM PC disk operating systems, will access both single and double sided disks together with the standard IBM hard disk.

Almost since the advent of microcomputers there have been zapping programs. The IBM PC superzap is the latest generation of such programs and, therefore, boasts the most numerous and sophisticated features of them all.

There are many features that we must talk about but perhaps the most outstanding that, so to speak, sets Superzap apart from its competitors, is the way in which the cursor is controlled. A zapping program is almost entirely dependant upon cursor movement, and hence anything that can be done to make this easier is of vital importance to such a piece of software.

Generally speaking, the cursor in Superzap follows the guidelines of a standard word processor. Most importantly, it uses the special keys of the IBM PC keypad. For instance, the PgUp Key will do just that - it will move the cursor to the page above the one currently shown on the screen. PgDn does precisely the opposite. The arrow keys move the cursor on the current page in the direction of the arrow.

Probably the second most important difference between Superzap and similar programs is that it automatically installs a RamDisk into whatever memory is available, after Superzap has been loaded. This, when one comes to think of it, is a natural feature for a disk zapping program, for it means that complete tracks or other sections of the disk can be moved to another "disk" without leaving Superzap. Essentially, the user is given a free disk drive to use with the program!

Superzap will address the disk either directly, that is to say by track and sector, or by way of the logical data in a file. In the latter usage, the system displays the sectors in the file in the order that they are allocated on the disk. Hence, it is not necessary to either have any knowledge of disk structure nor concern for it.

Yet another advantage of Superzap is the abundant number, and easy use, of Help screens. There are, in fact, six such screens which are displayed, at various times, at the top of the screen. A single command will also replace the existing screen in its enirety with the Help menu. In this way, one is never very far away from help, which is so frequently vital in this sort of program.

Superzap is, of course, primarily intended for accessing IBM PC disks, either hard or floppy. However, it contains a rather unique system whereby the program can be set up to read almost any IBM DOS compatible disk system, fixed or floppy. The number of sectors

1

per track, number of tracks per head and the heads per drive are all user definable. Additionally, rather in the manner of most present-day sophisticated disk operating systems Superzap may be CONFIGed so that whenever that particular disk is used in the future it will know that it has the alien disks in the system. Thus, one can have a number of copies of Superzap each CONFIGed for different configurations. Also, the IBM function keys may be re-started by Superzap and such changes will also be copied over when the CONFIGed feature is used.

Superzap contains a math function by means of which the user may add, subtract, multiply and divide in Hexadecimal. decimal. octal and binary. Conversions from these bases may also be made to and from decimal.

Superzap contains an excellent search function by way of which any stipulated string of data may be found on a disk. This function will find a string anywhere on a single sided diskette in a little over one minute. On average it takes under thirty seconds.

The Copy function will copy data from the disk, a file or from the RamDisk to any part of the disk, the file or the RamDisk. The source and the destination for the copy may be any of these devices. Thus, for example, the user is totally free to copy sectors from a file in drive A directly to the disk in drive B. Sectors may be copied from a disk in drive A into the RamDisk or out again, and so on. keys of the IBN PC keyped. For instance, the Polic

The following is a list of the principle commands available in Superzap:-

Cursor The cursor may be moved to any of the following:

Screen start Screen end Up one page Down one page Scroll up Scroll down Start of file Start of disk End of file End of disk Jump to a new byte location To the occurrence of a search string

Probably the seco

Utility Commands

e RAM data

Stipulate a new file Stipulate a new drive re-read a sector Write a sector Fill a sector Vrite a sector Fill a sector Format a track Verify sectors Move RAM data

System Commands

Set the number of tracks per head Set the number of sectors per track Set the number of heads per drive Activate cylinder/platter access

Modification Commands

Toggle Modify on or off Abort changes made Modify in ASCII mode Modify in Hex mode

General Commands

Display the head, track and sector of the display Switch the command menu or main Help screen on or off Switch the subsidiary Help screens on or off Quit the program and return to DOS Save the current configuration Set the current directory Print sectors on the line printer Define the function keys

As will be seen from the above, Superzap is versatile and far-reaching. To return to the start of these comments, however, it is its ease of use, made up of sophisticated cursor control, multiple Help screens, plus the provision of a RamDisk, that really makes it different.

LITTLE BROTHER - A NEW DATABASE

There are two main features which set Little Brother aside from other databases. First of all it has a very high capacity. Subject to the available room on the disk, a file for instance can hold up to 65,534 records and each record may consist of up to 64 fields; these are very generous figures. Each field can hold 154 characters but the total byte count for each record should not exceed 1024 bytes.

LITTLE BROTHER - MAINTENANCE SUPPORT UTILITIES

The second important feature of Little Brother is its ease of use, or user friendliness, or whatever one wants to call it. The modules which Little Brother uses are transparent to the user, thus although disk access time is still considerable, as indeed it has to be with a database type program, one is not having to consider which module to call up all the time. This user friendliness comes about by reason of the fact that HELP files are available on line whilst using the program at almost all times.

Generally speaking, the program is run by splitting the screen into two sections. By far the greater in size is the top section which is that part of the screen in which data and other instructions are entered by the user. The bottom two or three lines are used as command and information lines. There are usually five or six options which can be chosen from the Menu, which is carried laterally across the screen, on one of these bottom lines. A cursor is moved along until the reverse video field, which it controls, is over the command required; then the Return key is hit. One of these commands is always HELP. We rate this as a very attractive feature, particularly as after access to the Help file one returns to the screen where one left it.

Little Brother contains all of the features of a good database management program, plus one or two extra. Obviously all of the fields and fieldnames can be defined by the user, but it is nice to have the screen definable as well. We know a lot of customers who like their databases set out in particular ways on the screen, Little Brother enables them to do so; the same remarks, incedentally, apply to the printer. One can lay out forms very easily with Little Brother. Obviously records may be added, modified, deleted and adapted in a number of other ways, as can be done with other databases. There are a number of types of data fields which can be defined ranging from alphanumeric to calculated fields. A nice feature is a literal field which allows ASCII characters to be entered. There is an extensive Calculation field supported. This allows all four of the arithmetic functions to be used in quite a complex formulae.

Little Brother can be run automatically, that is to say without any operator intervention and frequently-used Little Brother procedures such as selecting, sorting and printing records can be saved for future use. In this way entire job streams may be produced so that Little Brother may work on its own without help. To do this Little Brother takes advantage of the batch processing ability of the disk operating system. This means that almost any disk operating system function can be combined in the job stream.

One nice thing about Little Brother is that it uses an Index system; this means that the user creates an Index to his data by sorting the information in any field (except calculated fields) so that the data records can be accessed in either ascending or descending order. Using an Index enables the operator to find any piece of information within a matter of seconds, even if there are tens of thousands of records within your database. Little Brother requires two double sided disk drives and MS-DOS 2.1.

LITTLE BROTHER - MAINTENANCE SUPPORT UTILITIES

A new support program has now been released for Little Brother, called Little Brother Maintenance Utilities No. 1. It consists of two extremely useful utility programs that can be used in conjunction with Little Brother data files.

The first utility called LBMAINT is an all purpose file maintenance utility. It enables the user to generate a new database file set from existing Little Brother data. In other words it is not necessary to restructure an existing database. It also provides an excellent means of rectifying old records from your database. In using LBMAINT you are alowed to create your new database from all records in the existing file or from a chosen few records. LBMAINT will allocate only as many records as it needs to create a new file set. This feature alone is extremely useful for deallocating space consumed by the database file if too many records were allocated for it. LBMAINT will give you total control over restructuring the database, any or all of the fields present in your existing database may be used and you may incorporate additional fields into a new Existing fields may be lengthened or shortened to either base. expand or compress your data fields. Even field-type conversions can be altered to some extent. LBMAINT is a corrective program in that mismatches between data and definition files may be corrected. Bad or unreadable records may be stripped out and existing Little Brother data files can be resurrected should the corresponding definition file become lost or unreadable.

The second utility is called FIXTEL. The purpose of this is to re-chain all deleted records in a Little Brother data file should the deleted record chain become broken.

NAMETAGER - NAME TAG MAKER

In case you do not know what a name tag is, it is one of those funny pieces of paper or cardboard that goes inside a plastic badge affair, which we all have to religiously wear at exhibitions and similar functions. It usually contains the owner's name and the name of his company and is supposed to make it easier for somebody talking to the owner. In fact, it makes them squint and they usually use the wrong name anyway! Such name tags are generally printed at great expense. However, quite often exibitions, fetes, conferences and other assemblies do not attract sufficient people to make it worthwhile printing. In that case, this program is a perfect substitute. It comes complete with a number of plastic holders which, of course, have a safty pin type of attachment on the back, plus a quantity of card stock, fan folded. The edges of this stock are perforated so that it will fit a printer. A word of warning, however, the printer must have adjustable sprockets because the holes of the stock are about 41 inches apart.

We have laid on sources of supply for the holders and stock, and just so long as they supply us we will continue to sell supplies for this program, subject only to one stipulation. The program can be used to print rather large but otherwise normal sticky labels. We will not be supplying those. To clarify, the program comes with a supply of cards and plastic holders. We will also be selling these later as required, as refills for the program. Nametagger can also be used to make place cards (table tents) and other attentiongetting notices. These are actually made by doubling up on the size of a name tag. Two name tag cards, in other words, are used for one notice. Some examples are shown below reduced in size.



Nametager is compatible with all Epson printers of which we are aware, including those early ones without Graftrax Plus. The normal IBM PC printer is, of course, an Epson. It is also compatible with the Gemini 10 and Prowriter or NEC printers.

Nametager provides a selection of eight pre-defined name tag formats. A utility in the program enables these to be reviewed, accessed and changed. If a format has been changed it can be saved

back to disk for future use. In addition to the formatting. Nametager comes with a utility which enables the user to generate customized logos. It would not be correct to say that any logo can be created, but certainly a great deal of versatility is provided by the utility.

In summary, Nametager is a useful program which at first sight appears to be fairly specialized. In fact, when one bears in mind that table tents or place cards can also be made, it comes in useful for home entertainment as well. affair, which we all have to religiously wear at estibilizes and

DC-10 - A FLYING SIMULATION

This DC-10 program continues the line of highly accurate flying simulations stocked by Molimerx. Apart from the original Columbia Shutle simulation, there are now programs to simulate the piloting of a 747, the Concorde, Airbus, and now the McDonnell Douglas DC-10.

The DC-10 is a three engine, wide bodied jet manufactured by McDonnell Douglas of the USA. It has had rather an unfortunate history in service, in that there were problems with a cargo door and then an engine mounting which apparently was damaged in a maintenance service. Regardless of these problems, which may well have sunk the saleability of another aircraft, the DC-10 is still an extremely popular aircraft with the airlines. this program, subject only to one stipulation. The

As with all other major aircraft, there have been many versions of the DC-10. The first five development aircraft were actually started as long ago as January 1969. Rolls Royce got itself into troubles, and so McDonnell Douglas chose the General Electric CF6 turbo fan engine. It will be recalled that Laker Airways invested heavily in the series 10 version of the DC-10. However, taking the first series for decriptive purposes, the three engines developed 41,000 lbs. of thrust and the aircraft had a wing span of 155ft 4ins. The maximum cruising speed was 584 miles per hour and the service ceiling was 35,000 feet. The range of 2705 miles was with a maximum payload of just over 100,000 lbs.

This program is a simulation of DC-10 flights over and around Europe. Both Gatwick and Heathrow airports are included, as are four on the Continent. As in real life, navigation is by radio aids. DC-10 features no less than ten VOR beacons in the United Kingdom, and fourteen on the Continent. For the first time in our simulations Non Directional Radio beacons are included, four in the United Kingdom and seven on the Continent. Instrument Landing Systems and Distance Measuring Equipment are provided at all six of the runways upon which you can land DC-10. As with earlier simulations, wind both on the ground and aloft is included, as is a random engine out emergency. The instruments are as follows:

Power setting for No 3 engine Slat setting Flap setting VOR tracking instrument Instrument Landing System Clock All up weight Fuel Fuel flow Runway to go (on take off) Vertical speed indicator

Indicated air speed gauge Artificial horizon Power seting for No 1 engine Power setting for No 2 engine Compass

6

Landing gear status Wheel brakes status Data from No 2 DME/VOR

MACH speed Precise pitch Precise roll Altimeter Nose wheel status Air brakes status True air speed Wind direction and velocity Ground speed Destination runway, place & number Distance to go Precise heading Precise track Data from No 1 DME/VOR

DC-10 is supplied with a free program which enables the user to calculate Flight Plans on his computer, to be used in DC-10. An extensive illustrated manual is supplied. It takes the reader through the control panel in general and then in detail. Discusses the controls at length; general discussions are held on flying technique of the DC-10 and then simple flight manoeuvres are described, such as normal take off, noise abatement take off, take off with engine failure, climb, cruise, turning, descent, approach, final approach and landing. Procedures in overshoots and engine out emergencies in various situations are described. Simple flight briefings, in other words, instructions for suggested flights, are also included. There are a number of Appendices, including detailed discussions of the VOR/DME navigation system and the ILS approach system. Purchasers of DC-10 may also buy the educational section of the Jumbo manual for £1 if they wish.

The program is written in Basic and compiled. The compulation enabled the author to include very precise slow down loops in the source code thus producing, as we have said earlier, an exact simulation. DC-10 is suitable for 128k machines and like most of our other IBM software, for monochrome VDUs. So far as compatibility with other machines is concerned, this will depend entirely on compatibiliy with the Microsoft Compiler. If they are compatible with it then the program should run without trouble. If they are not however, it most definitely will not run.

MYSTERIOUS ADVENTURES - STANDARD CONVERSATIONAL ADVENTURES

The Mysterious Adventure series by Brian Howarth is written in machine code to give a fast response and they all feature a Save Game facility. They all follow the standard Adventure type format, which constitutes a conversation with the computer. At the moment there are ten Mysterious Adventures in this series. Others, no doubt, will be added in the future. The scenarios of the present Adventures are as follows:

THE GOLDEN BATON: Venture into a strange province of sorcery and evil magic to recover the Golden Baton, a priceless artifact whose powers are said to bring great health and prosperity to the land.

THE TIME MACHINE: As a newspaper reporter you are sent to investigate the eccentric professor who lives in the old house on the moors. What is his secret and why is his house now deserted?

ARROW OF DEATH PART I: A blight has fallen on your homelands, the Baton has become tarnished and now radiates a malevolent aura of evil. Your mission is clear - trace the source or this evil and destroy ... or be destroyed. This is the first part of an Epic Adventure, although each part can be played as a stand alone scenario.

ARROW OF DEATH PART II: You now have the means to destroy your enemy ... but you are far from home and this land is strange to you. Can you cope with the deadly perils which approach you and have you the strength to see your mission through to the final conflict?

ESCAPE FROM PULSAR 7: Alone on a gigantic space-freighter ... the rest of your crew have died horribly at the hands of a mutated zoospecimen. Your only chance of escape is to reach the frail shuttlecraft. But the lurking monster is hungry and you are the only food it has left.

<u>CIRCUS:</u> Your car has run out of petrol on a lonely road miles from habitation. As you trudge reluctantly down the road in search of help you are suddenly confronted by an amazing sight ... in a nearby field is a huge circus tent! But this is no ordinary circus as you will soon discover.

FEASIBILITY EXPERIMENT: Far across the gulfs of time and space, a dying race of super-intelligent beings search the universe for a hero to save their existence ... At length their thoughts turn to planet Earth. You are chosen to be their saviour in a bizarre scenario where death is a mere thought away.

THE WIZARD OF AKYRZ: You are in the Royal Palace. The King beseeches you to rescue his daughter from the evil wizard. If you succeed your reward will be priceless ... failure will bring certain death.

PERSEUS AND ANDROMEDA: Travel into the realms of ancient mythology. Battle with grotesque monsters and supernatural powers as you search for the hidden secrets of myth and legend.

TEN LITTLE INDIANS: This mystery begins with a train journey into a strange country. What secrets are held by the strange country mansion? What meaning is attached to the strange idols? Maybe you will find out if you live long enough.

You either love Adventures or you are totally and irrevocably frustrated by them. Mysterious Adventures may be purchased either singly, by three, or all ten may be purchased. The single and trio are supplied on individual disks. The collection of all ten is supplied on two disks.

EMPEROR - A MAJOR WARGAME

Emperor is a massive war game set in the first three centuries A.D. No less than twenty-one different provinces are involved stretching from Brittania and Scotia in the north-west of the Empire to Persia and Mesopotamia in the south-east. It is an intricate and complex program in its algorithms, but thanks to the use of some of the features of the IBM PC, the program is user friendly and very simple to play. The player can therefore concentrate all of his perception on the running of the Empire and the dispersement and tactics of his legions. Emperor is played on a schematic map of the Roman Empire, as it existed in the first few centuries A.D., displayed on the VDU. There are three types of army for each province. First of all the legions that are loyal to the Emperor. Secondly those legions in the province that are revolting against the Emperor's rule (if any), and finally a number (if any) of barbarian armies. Each category is roughly 10,000 men in number.

It would not be possible to describe herein the intricacies and strategies that are employed in Emperor. One of his prime concerns is to keep the Plebs of Rome happy whilst compaigns are being conducted. If he does not supply them with sufficient bread and circuses then he is likely to find himself deposed rather promptly. In the field in addition to the barbarian incursions into his Empire, the Emperor must be concerned with the loyalty both of the generals which he sends out to the provinces and the troops themselves. Another prime threat to the length of his reign is the fact that Rome's corn comes from Aegyptus. If this province is not kept in order then Rome will starve and again the Emperor will be deposed.

Meanwhile back in the field of battle there are five external and continuous threats to the Empire. These are lands, not within the Empire but adjacent to it, in which the barbarians are likely to assemble their armies before actually invading a province. These are Caledonia, Scotia, Germania, Dacia and Persia. Campaigns may be carried out in these foreign lands, but the Emperor must be very careful to win. Sending legions outside of the Empire with the subsequent loss in battle is frowned upon.

To add to the Emperor's problems, revolting legions led by revolting generals, if left unchecked, will always proceed towards Rome. Thus if, for instance, legions in Gallia revolt and are not beaten down in battle, they will proceed through three or four provinces, on the way to Rome. If they reach Rome then once again the Emperor must fall on his sword.

Money is important in the game. The coin of the realm is Denarii. The balance in the Treasury is adjusted by increments of 1,000 Denarii at a time. The Emperor may decide to double-tax the province in order to raise more money with which in turn to raise more legions but, of course, the inhabitants of a province on which double taxation has been imposed are not very happy and are, therefore, liable to revolt. Money also has to be found for bread and circuses. If the Emperor finds himself hard up he can cut his overheads by disbanding legions. To train and arm a legion costs 2,000 Denarii, but if the Emperor disbands one he only gets 1,000 Denarii credit. So, the poor Emperor must not only be a military strategist and political leader, he must also be proficient in finances.

Emperor consists of two moves per year and is played over a period of eight years and one game will usually span $1\frac{1}{2}$ to 2 hours. There are three skill levels available and they are user definable by way of selecting the appropriate century in which to play. The Emperor may go on campaigns himself, which has certain strategic advantages but his military ability is chosen randomly. At the start of each campaign the Emperor's presence in a particular province will command the loyalty of the province while he is there. The problem

9

is that if there is a battle in that province and the Romans get disasterously beaten then the Emperor, that is to say the player, may himself be killed. Whereupon, of course, the game comes to an end.

KING ARTHUR - A SHORT WARGAME

King Arthur is a short war game and its main purpose is to supply a sampler for customers who are not sure whether or not they are interested in this type of computer game. It is short, in other words it can be completed in about twenty minutes, whereas a normal war game will probably take two hours. Before the advent of microcomputers, war games were played only on boards with pieces or The idea is that the Game Master (in the case of micromarkers. computers, the machine) controls a simulation of a war. usually a well-known one. On the board one moves pieces to represent armies and other various items. On the microcomputer one merely types in the instructions as to how one wishes one's forces to be set out. Moves are divided into set times or periods. In King Arthur, for instance, there are two moves per year. One in the Spring and one in the Autumn. Upon how one conducts and deploys one's forces depends the results of the battles and therefore the war.

King Arthur is a simulation of the attempted invasion of this country by Anglo-Saxons in the fifth and sixth centuries A.D. King Arthur led the Celtic Britons against invading Angles, Saxons and Jutes, who had been arriving in their longships from the continent and gradually taking over eastern Britain since the Romans left at the beginning of the fifth century. It has been suggested that he formed a striking force of heavy cavalry which were the prototypes of the legendary "Knights of the Round Table". This shock force gave him a decisive advantage over the Anglo-Saxons who fought entirely on foot. Over a period of years he conducted a series of campaigns all over the country, pushing back the AngloSaxons on all fronts and it is with these campaigns that the game is concerned.

King Arthur is played on a schematic map which appears on the IBM screen, in monochrome mode. The various provinces are marked and when the game starts the player is provided with three spies. He may send these into any of the four or five Anglo-Saxon held provinces. Randomly they will get killed or alternatively return with useful information upon what the Anglo-Saxons are doing. Based upon this information, together with the conduct of the game so far and the results of the battles thereof, the user decides where he should move his Hordes. Hordes are culled from all of the English held provinces each year and are assembled at a point stipulated by the player. The assembly point must be chosen very carefully because the ultimate collective Horde can only move one province per move. After the Horde has moved from its Muster Point to a province where Anglo-Saxons are present, a battle will ensue and the player will be informed of the result. There are a number of other factors concerning the method and the outcome of play, some of which the player has to learn for himself as he goes along.

Most of the old provinces or Roman cities are the centre point of the provinces. For instance, Londinium (London), Glevum (Gloucester) and Ratae (Leicester) were still under British control. They were, however, close to provinces held by the Anglo-Saxons and therefore under constant threat of enemy raids. It is only, incidentally, in the Spring that the Anglo-Saxons bring their invaders over from Europe. So, to some extent, King Arthur has a slight advantage. The game lasts for a period of ten years.

STATPAC - A PROFESSIONAL STATISTICAL ANALYSIS PACKAGE

StatPac is a very well known program written by David Walonick. It is used by everybody from the Bank of America to IBM! In a few words, it can be truthfully described as a de-luxe statistical analysis package. It is available on a number of machines, including of course the IBM PC. A few of the highlights of StatPac are:-

- * Menu-driven programs
- * User created codebook. Accepts up to 255 variables and 5000 cases
- * Machine language code allowing fast data entry
- * Fast and easy editing
- * Hundreds of tasks can be specified at one time
- * Reports may be custom designed
- * Clear screen prompting
- * All phases of research analysis, including:-

Write subfile	Sort cases, list cases and weight cases
Breakdown	Frequency discription
T-test	Descriptive statistics
Multiple regression	Crosstabs and chi-square
Analysis of variance	Correlation and linear regression
Multiple variable response	

In summary, StatPac is a proven (over four years in the field) statistical analysis package with many of the advantages of the mainframe program Statistical Packages for Social Sciences. Although it has features additional to that program, such as built in word processing and editing, StatPac will typically be used by any professional who is concerned with statistics and perhaps particularly social scientists, market analysts and medical researchers. In other words, almost anyone in the survey and research community. The last update of StatPac was January 1985, which added: stepwise multiple regression, new editing and plotting, a global recode and the addition of Spearman's rank order correlation coefficient. Many other enhancements were made at the same time. A booklet on StatPac is available on request. Note, that unlike all of our other programs, StatPac and Forecast Plus are both of such a technical nature that their support will emanate from the author in the United States. You will not be able therefore to get any intelligent support from Molimerx on these programs and a prospective purchaser should be aware of this before buying. We can however supply the name and telephone number of the author, who has undertaken to support these packages in the United Kingdom.

A demonstration package of StatPac is available. This is a fully functional version of the program and comes complete with the full manual. The only restriction is that it is limited to 10 variables and is copy protected. The purchase price of the demonstration package is deducted from the full purchase price should you decide to buy the full suite.

FORECAST PLUS - A GRAPHICS FORECAST PACKAGE

Forecast Plus was written by David Walonick, who is well known for his program StatPac, which is described above. In fact that description should be read in conjunction with this one because all of the stipulations mentioned therein apply equally to Forecast Plus. Forecast Plus is a graphics forecasting package and produces short and long range predictions of the future, mostly in graphical form. The author, and knowing him we are inclined to agree with him, feels that Forecast Plus is the most powerful forecast tool ever created for a microcomputer. Every organisation large and small needs to plan for the future, forecasting personnel, production, process control and many other people. Forecast Plus will reduce the guesswork and possibility of costly mistakes.

In the past quantitative forecasting has required extensive specialised education. Forecast Plus, however, makes it possible to use the most sophisticated techniques, even if you have no forecasting experience. Added to which of course the graphics features and certain other automatic features will make forecasting comparitively easy for the beginner. New data management is an important part of any forecasting package. Forecast Plus includes a complete data manager for creating, editing and transforming data files. It is clearly beyond the capability of this sales literature to attempt a full description of Forecast Plus, hence a booklet is available on request.

A demonstration package of Forecast Plus is available. This is a fully functional version of the program and comes complete with the full manual. The only restriction is that it will stop working after you have used it 25 times and it is copy protected. The purchase price of the demonstation package is deducted from the full purchase price should you decide to buy the full suite.

GOODNESS-OF-FIT - A REGRESSION MODELING PACKAGE

Above you will find described StatPac and Forecast Plus both of which were written by Walonick Associates in Minneapolis in the States. They have now written this new program which despite its rather peculiar title is an extremely useful one because it is essentially everything you need to know about regression. It includes the following features:-

- * Simple Linear and Nonlinear Regression
- * Principal Componants Analysis
- * Stepwise Multiple Regression
- * Multicollinearity Diagnostics
 - * Probit Regression

Data management is an essential part of any analysis package and Goodness-of-Fit contains a complete library of data management programs; you are able to enter edit, print, merge and also reformat data files. The data entry and editing programs have been designed to emulate modern key-to-disk systems. They are very easy to use and contain special editing features. The heart of the Goodness-of-Fit package is the command processor. This is the program you use to perform transformations and design your analysis. Using the command processor is similar to using a word processor, except special features are built in to make it easier to design an analysis. This part of the suite enables you to create variables and transform existing variables. There are just under 20 key words in the command processor which enable you to totally control the analyses.

Like Forecast Plus and StatPac we have available a comprehensive leaflet describing Goodness-of-Fit. The features are far greater than can be described in this catalogue. If you wish to know more about the program please send in for the leaflet - there is no charge. Also like the other two programs there is a demonstration version of Goodness-of-Fit available. It operates in exactly the same way as the demonstration disks of the other programs.

ELECTRIC PENCIL - THE EASIEST TO USE WORD PROCESSOR

The Electric Pencil has all of the attributes that one needs in a word processor, in fact it is almost all things to all men - it is sophisticated and yet simple, help is available at all times and you can control the amount of help that you need or want. There is no need for educational courses with Electric Pencil - anybody should be able to learn to use it within an hour or two. What is more, the commands are so simple and so easily available at all times that it would be very difficult to forget how to run Electric Pencil once learnt. All of this ease of use comes with a fully sophisticated package and a full complement of major features. In addition Electric Pencil has one very great advantage that many other word processors do not possess - it has been around for a very long time. The original version, to which the current one bears little relation, was written in 1978 and 1979. Although there is little resemblance between the two, the important advantages of an evolutionary product remain.

Electric Pencil is compatible with PC-DOS 1.0, 1.1 and 2.0. As of press time we do not know whether it is compatible with 3.0. This version was specially written for the IBM PC and XT machines. It runs dynamically, that is to say it will adjust to all memory configurations from 48k to 512k. Almost all word processors nowadays have similar features. The state of the art is such that the improvement of actual processing and printing features has almost come to an end. What is important now and what is so well represented in Electric Pencil is the ability of the word processor to interface with the operator.

Electric Pencil has five help levels going from no help at all on screen (full text entry screen) to the full help screen which is shown below. Even this, as you can see, takes up only about half of the screen so there is plenty of room for actual text entry. Beneath the illustration of the full help screen are two other illustrations showing the Print Menu and the System Menu available in Electric Pencil. As can be seen these are mini help screens on their own, in that they consist in the main, of lists of commands plus what those commands do.

Сир	s lock: Off	Num	Lock. Off	Unde	rline. Off	Bold.	011
+ + + +	Cursor up Cursor down Cursor right Cursor left	HOME *Q *HOME *B	Screen start Screen start Text start Text start Text start	END *END *N	Screen end Text end Text end Tab It rt	PgDn	Line end Line start Page down Page up
DFL	Delete char		Delete block		Srih Replice		System menu
•0	Delete char	·J	Insert block		S&R cont.	AP.	Print menu
NS	Insert mode	-E	Scroll up	- 14	Marker set	AF.	Form teed
1	Insert mode	٩X	Scroll down	- AL	Marker jump	40	Hard space
-4	Delete line	*٨	Bold face	*S	Tab set	AR	Repeat
45	Insert. Line	٩Z	Underline	-	Tab free	AH	Help
AT	Frase to FUL	-	Back Space	FSC	Dist a mater	4.1	Fud record

RJ ON/OFF Right Justify Off LM 8-255 Left Margin: 8 LL 8-255 Line Length 88 LS 1-255 Line Spacing: 1 PL 1-255 Page Length 54	HF ON/OFF Hait on Forms: Off LF ON/OFF LF Alter CR On CR ON/OFF CR After Line: On BS 110-9600 Baud Setting: 300 M 7.8 Word Length: 8	DATE I-AI-1980 DEFAULT PRIVE A TEXT FREE SPALE 65523 NUMBER OF WORDS 0	TIME B BB BB DEFAULT FILE None TEXT SPACE USED B SAVE FRINT VALUES ON
PS θ-255 Page Spacing 12 PR θ-255 Print Records β PN θ-65535 Page Number 1 PA Parallel Driver:	RP N.O.E. RS-232 Parity N SB 8,1,2 Stop Bits: 1 NN 8-255 Number Nulls 8 .VI Video Driver Active	LOAD Load text file APPEND Append text file to end COPY Gopy Recover file ERASE Delete file from directory KEY Redefine function key	SAVE Sive textfile DIR Display files in directory RENAME Rename file CLR Clear all text CAN/CAB clear atternbrone cursor
RSI RSI Port#1 RS2 RS2 Port#2 Copy Printing	NO Null Driver UDI User Driver #1 UDZ User Driver #2 gressive Software Design	SETUP Sive system parameters EXIT Exit Electric Pencial DATE Set system date	MOUNT Change System disk PV ON/OFF Save Print values with tex TIME Set system time
COMMAND: examination of the second se		COMMAND	
STATUS:		STATUS:	

The System Menu Display.

The original version? to which the current one bears little A list of some of the primary advantages of Electric Pencil follows:- between the two, the important advantage

*On screen help - 5 levels *Superfast word wrap *Print to video *Print multiple copies

*Easy-Menu driven-prompted option choices *Programmable function keys *On screen bold and underlining *Automatic configuration *Uses all the IBM's "word processing" keys *63k files Search and replace forward and backward *Fast block moves *Alternate characters can be used in text *Search and Replace *Print formatting parameters may be saved with file *Conditional search & replace *LOAD, SAVE, APPEND & COPY files from Electric Pencil *Masked searches *Print formatting from menu or with embedded commands *Full word searches *Parallel & serial print output *80 character keyboard buffer *Two "user" print driver interfaces - menu selectable *Print files from memory or disk *Automatic file backup *Printed files may INCLUDE other files on disk *Automatic file verification *Printed files may CHAIN files from disk *Loads EDLIN and BASIC files *All menu print values may be set dynamically *Creates EDLIN & BASIC files *Any control sequence may be sent to printer *Bad disk file recovery *Print any range of page numbers *Print any formatted single page *Page number format may be redifined *Dynamic print formatting *Translate any character to any character or string *Redefine embedded characters *In file print character translations *SEND text without formatting *Print parameters may be saved with the file

Electric Pencil is supplied with two ancillary packages. The first is called Pencil Tutor and it is exactly what it says. It is essentially a manual on disk. It is not really educational because, as we have said, Electric Pencil does not need it. One of its advantages, however is that it is smart. The manual will scroll through and as the subjects being related on the screen change so the illustrative help menu at the bottom will also change. Another advantage is that Tutor Screens are called by pressing the actual control key upon which you need help. Pencil Tutor is therefore essentially an alternative to reading the manual. If you prefer to see the manual on the screen then use Pencil Tutor. If you prefer the written word, use the manual.

The second ancillary package is called Pencil Ace. What it does is to add luxury features to an already de-luxe package. Its features are as follows:-

*On screen print formatting from text entry mode *On screen print formatting displays page breaks *Word sentence and paragraph cursor control *Split screens - up to six at one time *Definable screen width *Define text and screen colour with colour monitor installed *Multiple files in memory *Multiple files in memory *Automatic key entry of unlimited length *Redefine any key with up 255 keystrokes *Key definitions may be saved *Key definitions may may be enabled or disabled at any time *Expand and compress tabs *DVORAK, French, German and Spanish keyboards *Cursor to next word, sentence, and paragraph *Cursor to previous word, sentence and paragraph *All reprogramed keys may be saved as part of the system *Mini-command windows for Print and System menus *Multiple video displays *Screen widths may be defined

Both Pencil Ace and Pencil Tutor are of course included in the Electric Pencil package without further charge. All in all the Electric Pencil word processing package is one of these unique things that happens in life occasionally - a really first-rate product that has not received the publicity which other products of lesser quality and higher cost have and is therefore a very good buy.

ELECTRIC PENCIL DICTIONARY - A PROOFREADER FOR ELECTRIC PENCIL

There is not a great deal that one can say about a dictionary program. The Electric Pencil Proofreader follows the tradition of its word processor brother in featuring ease of use. What is important with a dictionary is the statistics. The Electric Pencil Proofreader will check a 12,000 word file (approximately 63k) in under two minutes, in fact about 80 seconds. The dictionary has 125,000 words, 100,000 of which are common words and 25,000 are medical and legal terms. An unlimited number of words may be added to the dictionary. In fact the dictionary size is limited only to the maximum size which a disk file may be. Under PC-DOS 2.0 for instance, a file may be up to 8 megabytes. 100,000 words incidentally, requires about 240k of disk space. The dictionary has three modes of operation. The first - Real Time - is single word checking. The second is Dictionary Browse and finally the third is to check a file or a block of text from memory or disk. there are many other features in the Electric Pencil Dictionary program but to be fair they are not a great deal different than those found in any first class dictionary program.

SUPER UTILITY - HELPS RECOVER THOSE ERASED FILES!

Super Utility can well be described as an insurance policy, for one of its principle functions is to attempt to recover files which have been inadvertently erased by an over-zealous operator. Like all insurance policies, it has to be hedged with one disclaimer. It is addressed only to customers who are familiar with Super Utility Plus, which we have sold for many years for the Tandy machines. We rather feel that naming this program Super Utility is something of a misnomer by Powersoft, the authors. Customers who have owned Tandys may well get the impression that Super Utility is as full and versatile as Super Utility Plus. It is a very good program, but it does not come close to carrying out all of the functions which SU + does. Super Utility requires ownership of MS-DOS 2.11. It is compatible with a single drive machine.

Now we will have a look at the various commands of Super Utility. It is menu driven and, apart from a quit command, consists of five options. The first is an ability to map the usage of any disk. For those who wish to get involved with disk usage, this is an extrememly useful function. It is split into two; one gives you a graphic indication of how much of the disk is used. The other gives you the actual statistics, which can be very useful. On the IBM, Super Utility supports hard disks. The problem is that there are two or three different types around and we have been unable to check Super Utility with one. Subject to those provisos however, Super Utility does support hard disk and the disk map section of the program gives partition graphics as well as disk graphics. The second option on the menu is to modify by sector. This is a straightforward Zapping utility. One can select the sector that one wishes to go into and change it at will. To all intents and purposes, this single section of Super Utility is equivalent to Super Zap described elsewhere in this catalogue. The third option, Directory and File Changes, is probably the one that will be most frequently used. It lists all files in the directory whether they be dead or alive and the option is given to resuscitate dead files or files that have been inadvertently erased. Obviously if a file has been erased and then re-used by the system for another file, then nothing on this earth can recall the data in it. Subject to that, however, and subject to the disclaimer previously mentioned, Super Utility will semi-automatically revive dead files. We say semi-automatic because certain input has to be made by the user. It is difficult to define how much knowledge is required to use this section of Super Utility. It is probably fair to say that it is minimal but on the other hand a knowledge of what is going on in the disk will certainly help. We would not recommend a total novice to use this section of the program, unless he is prepared to make numerous backups of the target disk and essentially to experiment with them. On the other hand, it certainly does not require a great deal of knowledge on the part of the user. This menu option,

incidentally, is the way in which one goes into a disk if one wishes to modify a particular file by name rather than by sector number. Next comes Sector Copy and, as the title infers, this is the ability to copy sectors from a disk. Usually such facilities call upon the user to copy the sectors to another or indeed the same disk. Super Utility however writes the sectors out to a file named by the user. The final option is Sector Verify. This enables the operator to stipulate a range of sectors on the disk, the program then checks that these are capable of being properly read, in other words that they do not have any errors. In summary, Super Utility is an excellent utility for those who either wish to get deeper into disk usage or wish to have an insurance policy so that if they inadvertently erase or corrupt a disk, they stand at least some chance of rescuing the contents thereof.

BRIDGE - CONTRACT FOR THE IBM (See page 26)

Bridge is an extremely full implementation of the card game Contract Bridge on an IBM PC. As a matter of fact it is so extensive that it is split into two parts. One is called Acol and the other Modern. The former of course supports the Acol conventions but in addition it also uses Stayman, Blackwood and Gerber. Thus the conventions recognized, by the Acol version only are:-

- Baron 3C Respond to 2Nt Opening when responder is looking for Major suit fit
- Flint 3D Respond to 2Nt Opening when responder has long weak Major suit and wishes to play no higher than 3 level

Unusual Nt 2N Overcaller requesting partner to bid unbid minor

Gambling 3N Opening bid showing strong minor suit

And the system supported by both Acol and Modern are:-

Stayman 2C Responder looking for a major fit after 1Nt open

Blackwood 4N Partner requesting how many Aces you have Respond 5C All or no Aces 5D 1 Ace 5H 2 Aces 5S 3 Aces

5N Which is partner's follow up to 4N requesting Kings Respond 6C O Kings 6D 1 King 6H 2 Kings 6S 3 Kings 6N 4 Kings

Gerber 4C Partner requesting how many Aces you have after you have made a notrump bid Respond 4D All or no Aces 4H 1 Ace 4S 2 Aces 4N 3 Aces 5C Partner's follow up to a 4C Gerber requesting Kings Respond 5D All or no Kings 5H 1 King 5S 2 Kings 5N 3 Kings

The graphics in Bridge are good - the cards are not only intelligible but pleasant to look at. The program is totally interactive but it should be understood that it is not instructive. In other words you need to know how to play bridge if you are going to use this program. If you do know how to then you will find that the computer will give you a very good game.

The player always take the South hand, consequently when South is the dummy the computer plays itself. As will be seen from the above list the bidding in Bridge is extensive - the logic occupies by the far the biggest proportion of the program. In addition to the normal game of Bridge there is a problem mode so that the user can set up bridge problems on the computer and have them solved. At the end of each game the players hands are reported to the operator and he may thereby learn where he went wrong! Another nice feature in Bridge is that a hand may be replayed not only as it was dealt but the player may elect also to play any other hand. This is both interesting and instructive as it gives an insight into how the computer is thinking when it is playing Bridge and lets the player see if he could play the hand better than the computer. The scoring in Bridge follows the normal conventions and scores may be saved to disk at the end of each game. In summary Bridge is a very nice implementation of this game for the IBM computer.

QUICK-PRO+ - AUTOMATIC PROGRAM GENERATOR

Quickpro+ II is a file orientated Basic program generator. In other words, it actually creates Basic programs for you to your own specification. Most importantly, unlike some program generations Quickpro+ II requires no previous knowledge of either the Basic language or programming. The user answers a number of questions which are posed to him by the program, and on the basis of those replies, the program is written. One of the problems which have come about by reason of the widespread usage of microcomputers is the fact that software has, to a large extent, become a volume business. Thus, by far the majority of programs are "off the shelf". Although leading to cheaper software, this also means that the user, to some extent, has to sculpt his requirements to the program rather than the other way round. If he does not wish to do this, then he must write the program himself. A large number of users do not wish to do this. Hence, the application of program They are a comparatively cheap and easy way of generators. producing a program to the customer's own requirements.

Quickpro+ II generates only programs connected with data handling of one sort or another. The custom programs that you can generate will let you perform personal filing, fast data retrieval together with changes, deletions and searches of that data. Custom letters may be selectively printed, together with all kinds of forms. This new feature of Quickpro+ II is called Free Form Reporting. Calculations can be included in programs which are created by Quickpro+ II. It is ideal particularly for creating inventory programs. Letters may be prepared and selectively addressed and, of course, all reports (printouts) can be sorted, so that the information or data is printed out in the order in which you want it. Indeed, you can also select so that only certain information is reported. In other words, Quickpro+ II creates simple and straightforward database management programs.

One final advantage of the program generator route is that one can generate any number of programs. Hence, rather than have one database management program to give all of your database filing requirements, Quickpro+ II enables you to generate a number of them each custom designed for its particular application.

SHARE PORTFOLIO AND ANALYSIS - A BOON FOR THE PRIVATE SHARE INVESTOR

Essentially this program is two programs in one. It is aimed chiefly at the private investor and for him will maintain his folios of stocks, bonds and provide some analysis of market trends. We are aiming it at the private investor because of the capacities involved in the program. They are more than sufficient for him but probably would not be sufficient for a commercial investment house. The program will support 99 share holdings and it should be noted that in using the word 'shares' in this literature, and for that matter in the instructions to the program, it is used generically and covers stocks, bonds or what have you. The program is totally disinterested in the form of the investment so long as it has a name, a purchase date, a price paid and the amount of fees or tax involved. In other words any instrument that can meaningfully be reduced to those headings can be entered into the program. Within the 99 share holdings there may be up to 14 duplicates. In other words the same share may be purchased up to fourteen times at different prices and the program will still keep track of it. Sales, to all intents and purposes, are unlimited but the machine itself inflicts a ceiling of 500 sales before the sales disk has to be archived. We would guess that to the average investor this means well over ten years use, by which time probably the machine, and the program will be obsolete! The sales data, and for that matter the shareholding data, occupies a very small amount of room on disk as the data has been totally optimized. Disk space therefore, is not likely to be a factor. Whilst on the subject of capacities the following maximums apply for entries to the program:

* Quantity of any one share = 9999 * Price per share = 9999.999 pence * Fees and other expenses per transaction = £999.99 * Net cost = £99999.99 * Total cost including expenses = £999999.99 * Total expenses = £99999.99 * Total price of all shares = £999999.99 * Total number of shares = 999999

What this amounts to is that the total number of shares of any one holding is just under ten thousand. The total number of shares of the whole portfolio is just under one million. The maximum price that you can pay for one share is £99 and the total value at cost price of your portfolio must be under £1,000,000. A number of share prices are quoted as fractions and consequently a feature is included in the program so that fractions may be automatically converted to decimals for entry as data.

As we have said SPA is divided between portfolio management and analysis. The former is essentially a database management program dedicated, or specifically sculptured, to the share market. The user may enter therein the shares that he owns and as sales are made they too are entered so that at all times he may access his portfolio. This is shown on the screen in a convenient format and the user may edit any part thereof whenever he wishes. This editing should not be confused with sales - a sale is entered and deducted from the present portfolio quite automatically. However, occaisionally errors are made and it is for this reason that an editing function of the portfolio is included. Still within the portfolio section of the program is a statistics section. This provides a large amount of information divided into three general categories, that is to say totals of the current portfolio, sales since the last archival with aggregate profit or loss thereon and finally profit and loss by individual shares.

The analysis side of the program permits the user to enter data of almost any type gleaned from almost any source. The method of entry is rather like a speadsheet in other words like Calcstar or Lotus 123, whereby the operator enters the data into individual cells. One of the features of SPA is that this data can be of almost any origination. A typical application would be to enter weekly, the values of the shares in which the operator is particularly interested and perhaps holds, plus the weekly FT index. Maybe the Dow-Jones Index and the FTSE. The point is that the method of data entry used is extremely simple and convenient and the data may come from anywhere hence the user can enter in anything that is meaningful to him. If he prefers the FT Index to the Dow-Jones or the FTSE or whatever, then that is the one that he can enter. He does not necessarily have to use his own shares - he can analyse the trends for any shares that he likes. The 'spreadsheet' will accept up to 52 columns by 10 rows, allowing for 520 cells in all. This data can then be plotted by means of curves. These are displayed on the screen in a fairly rudimentary, but meaningful, manner. The program comes complete with a screen dump utility, so anything that is on the screen at any time can be dumped to the printer. Not only of course is this essential for maintaining hard copy of the portfolio section of the program but it can also send the curves, drawn in the analysis section, to the printer.

BOOK - IBM BASIC FASTER AND BETTER

There is no doubt that in some applications Basic, as a high level language, is slow both on the IBM PC and on any other microcomputer in which it is working. This is principally because each line has to be interpreted as it is reached by the machine. Source code, written in Basic but which is compiled rather than working through the interpreter, will execute far faster than its interpretive brother. If a user decides that for one reason or another he wishes to use the Basic interpreter, then up until now he had to put up with the fact that a large number of applications are slow. Basic Faster and Better can make his life a lot easier. The book was originally written for the Tandy machines and on those machines, increases in speed were quite dramatic. It seems as if they are

equally dramatic on the IBM PC. Although speed is obviously very important we would not like customers to think that this was the only intention of the book for as the second part of the title infers, this book makes Basic better - indeed it does. There are many chapters on how the regular everyday Basic on the IBM can be improved. Furthermore there are many chapters of actual program listings showing how this can be done. A large number of these programs have been written by the author in fast assembly code and then transcribed into Data statements which can be loaded into anyones Basic program. The data statements hold the necessary code for the implementation of any particular function. A simple CALL statement in your program will give you access to this faster and far more efficient code. One chapter is entitled 'Unlocking the Secrets of Basic' and it really does that. In this chapter and others a large number of very valuable PEEK and POKE are devulged by the author and made use of by him in no uncertain manner. In addition to this information the author, as we have said, lists a number of his programs both in assembly and in Basic Data line form and they are therefore ready to be inserted into any end users program. Bearing in mind that some of the applications are quite esoteric, for instance, windowing and text drawing, and you have a really powerful book aimed not only at the expert programmer but also, and perhaps even more, at those of us who do not have the experience of Mr Rosenfelder, the author.

JANUARY 1986 LISTING

SANDCALC - AN ECONOMICAL YET SOPHISTICATED SPREADSHEET

There have, of course, been many spreadsheets since Visicalc was introduced a number of years ago. They have, however, tended to concentrate on two areas, either they have been extremely sophisticated programs with a large number of new features and very expensive or they have been, what one might describe as, 'cheap and cheerful'. SandCalc is the first one that we have seen which bridges this gap. Its pricing is extremely reasonable, yet on the other hand it has a large number of the features of the big spreadsheets. To our minds, in order to achieve this it has only sacrificed two things. First of all the number of cells available is 2,600, whereas some big spreadsheets go a lot higher than that. Secondly, there is nothing built into the program to permit graphing of the data. So far as the first stipulation is concerned, a lot of people buy spreadsheets which are far larger than they will ever use, 2,600 cells is a matrix of 26 columns by 100 rows and that should be enough for all normal applications. So far as the graphing point is concerned, we are doing some experiments to see if we can come up with a curve drawing program that will accept SandCalc datafiles as its source. We hasten to say that we make no guarantees about this but over the next couple of months we will be investigating it. So, subject to those two points, we have what is in effect, a sophisticated spreadsheet with a large number of convenience features incorporated.

One of the main criticisms against larger spreadsheets is that they are very difficult to use, this was very much in the authors mind when he wrote SandCalc and, without a doubt, it is the easiest to use spreadsheet that we have ever come across. Perhaps one of the most interesting features, in that regard, is that all of the control keys, that is to say the keys which enable you to move the cursor around the screen and carry out other functions, are user definable. They come set, of course, to certain control keys but the operator can change those keys to whatever is either more convenient for him or is the more easy to understand. As a result, after only an hour or so experience with SandCalc, not only should an operator be able to use it efficiently but he should easily remember the commands for when he comes back to use it again.

The program may also be sculpted to the users own equipment. For instance, there is a feature which allows the operator to define whether he has a monochrome or colour screen. Further custom defined features which he may set, are to change the scrolling rate in the program so that it best suits the clock frequency of the machine, upon which it is running. This is particularly important in machines like the Sanyo 885 where the machine itself comes with two user chooseable clock frequencies.

A number of the printer initialisation codes being used by the printer owned by the operator, can also be changed. In this way special features of the printer may be used by SandCalc. The colour/monochrome feature is particularly nice because the display of SandCalc on a colour screen is very attractive. It is not only attractive but the colours have been chosen to make the screen easily legible and digested. Figure 1 is a sketch of that screen together with the keys to the indicators.



FIG 1

Key to FIG 1

(a) Column reference letters (A to Z) Row reference numbers (1 to 100) (b) (c) Active cell coordinate references (d) Active cell type indicator (Text, Number, Formula or unused) Active cell contents (e) Current logged drive indicator (1) (g) Auto move after entry, status flag (+ = ON, - = OFF) Special functions status flag (+ = ON, - = OFF) (h) (1) Auto calculate on entry, status flag (+ = ON, - = OFF) Current direction pointer for automatic cursor movement (1)

The list of key letters describes the various features of the screen and many of them are self explanatory. We will, however, make a few comments on those keys from f onwards. The f indicates the letter of the drive which is presently the default drive in your system. SandCalc will remember the last move that the operator made with the cursor keys, in other words, if he moved the cell right, then SandCalc will remember that. If \mathbf{g} is switched on then the next time that SandCalc moves the cursor itself, for instance after the operator has made all the entries to a cell, then it will move the cursor in the direction last used. Sometimes this is a nice feature, sometimes this is a nuisance. Consequently, SandCalc gives you the option of auto move or manual. SandCalc is liberal in the availability of mathematical calculations, indeed it has to be, as that is what a spreadsheet is all about. There are no less than 19 special functions available ranging from normal SIN to a random integer generator RND. EXP, COS, TAN, RAD, SQR and many others are also available. Naturally, using these functions slows the program down a small amount. Consequently h is a toggle switch to switch on or off the availability of the special functions. When you enter a formula, (more about these later) SandCalc will either automatically, at that time, carry out the necessary calculations or will delay calculations until such time as the operator tells it to carry them out. The i flag tells the operator whether the auto calculate is on or off. The j field is a particularly useful feature and tells you which way the cursor is going to move on automatic movement. \mathbf{k} and \mathbf{i} really go together. The \mathbf{k} field is where the data that you enter is first shown, i is a little carrot which shows you the width of the cell. Not shown in the sketch is a figure to the left of the word 'enter' which indicates the number of letters that you have typed in. The cursor is shown in the sketch at cell A1 and that is how it would appear on a monochrome screen. On a colour screen, it is the same but there is a red background.

SandCalc comes with a complete Help file built in and it can be called at any time that you are operating SandCalc. The manual that comes with it therefore, is, to some extent, superfluous but it is a good manual written by the author of the program. It is neither too verbose nor, to the best of our knowledge, does it leave anything out. There are three cell types; namely Text, Numbers and Formulae. The cells which you use for text are usually used as labels for lines or columns but may, in fact contain any alpha characters. Furthermore they may contain more characters than can be shown in the cell width. The width of a cell, incidentally, can be changed to whatever you want. Furthermore text can be justified within the cell, left, centre or right, by using the justify command. The number cells, of course, contain figures and can be shown to any number of decimal places from zero to 9. The default is two places after the decimal point. Again this can be changed by another command in the program. If the number entered cannot be displayed in the cell width available then SandCalc will first attempt to show it in exponential format but if the cell width is still insufficient then a symbol comes up to show that the cell width must be increased to show the entire figure. A formula cell is where you enter mathematical formula upon which the program is stacked. As we have indicated, SandCalc is particularly versatile or generous in its supply of arithmetic functions. In addition to 19 special functions, the normal addition, subtraction, multiplication, division, percent and exponent are all supplied and of course, formula elements may be entered in the negative form by prefixing them with a minus sign in the usual way.

The arguements to the functions or formula may be any valid formula element or expression and is enclosed in brackets. When the formula is entered into the cell the necessary calculation will be performed either immediatly or later at the users command. The RND special function, incidentally, will return an interger between zero and 32767. In addition to the foregoing arithmetic functions, logical functions are also supported. There are three; namely greater than, less than and equal to. Finally a number of List operators are supported which allow full or partial rows, columns or two dimensional blocks of cells to be evaluated as a group. In other words if a simple summing of a column is to be carried out then it is not necessary to enter in the cell designator for each cell in the column, one just states the first cell and the last and the program takes over from there.

Apart from the three logical functions there are also two others which deserve a mention. The first is Average and the second Count. Average will return the average value of the range of cells stipulated. Count will return the number of cells within the stipulated values.

In addition to the foregoing there is a range of commands which are prefixed by an oblique sign. We have already dealt with Autocalc which is entered into the machine as /A. /B will blank out or clear one or more cells of their contents. /C will copy one or more cells to one or more destinations. /D will delete a row or column from the spreadsheet and /E allows formula or text cell contents to be edited. This command itself has a number of subcommands to enable the editing to go that much easier. /F we have also briefly mentioned, it enables the displayed decimal point to be changed. /H stands for 'hold' and locks selected title rows and columns onto the display so that when the spreadsheet cursor is moved off the current display the titles will remain. /I enables the user to insert a new row or column of cells onto the sheet. /J allows the text in a cell to be justified - left, centre or right. /L and /S respectively load or save a spreadsheet to disk. /M toggles the automatic cursor movement on and off. /O sets the direction of the calculation of any particular model. /P sends the model contents to the printer. Two modes of output are available, the first is essentially a screen dump of the spreadsheet, the other lists the cells with their designations individually. /Q stands for quit and is the way of finishing a run on SandCalc. /R enables specified cells to be defined as a cursor path. /T is to enable or disable the mathematical special functions. /U is the method whereby the operator sets up his user defined features that we have previously mentioned. /W sets the width of a cell and finally /* tells the program to carry out the calculations if auto calculate is not set.

There are many other features to SandCalc which space does not permit us to describe but all in all it is an extremely versatile and sophisticated spreadsheet which should be more than sufficient for 90% of spreadsheet owners.

MONITORS

Despite what is stated on page 1 of this catalogue, all Molimerx programs are now compatible with either monochrome or colour monitors. That is not to say, however, that programs are in colour, it just means that they will run on a colour monitor in a legible format with the colour or colours originally put into the program. We make this point because some programs, for instance Superzap and Mysterious Adventures have no application in multicolour. Furthermore, not all programs are now distributed in single sided format. Some of them, for instance StatPac, Forecast Plus and Goodness-of-Fit are now too big to be contained on a single side of a disk and they are therefore distributed in double sided format, in other words for 360k drives. Programs are still distributed on 40 track disks however, if you require 80 track, you must specifically order them and there is an extra charge of £5 plus VAT plus shipping.

OTHELLO - A DELUXE VERSION OF THIS WELL KNOWN GAME

There have been versions of Othello for microcomputers under various names since almost day one in the microcomputer industry. So far as we know, they have all been restricted to simply playing the game and have differed from each other mostly in the amount of skill shown by the computer and by the graphic presentation on the screen. This version is what might be called the "Grand-Daddy" of them all! It not only plays, in its top skill level, at Masters level of Othello, it also contains a number of unique features so that the user, if seriously interested in the game, can study the computers thinking. This takes a number of forms which we will describe in a For the uninitiated, Othello (often called Reversi) is minute. played on a board consisting of 64 squares. In the actual board game each player has a number of pieces. One player with black and one with white. These pieces are placed on the board in turn by each player and must be placed on a square adjacent to one of those occupied by his enemy and in an unbroken line with one of his pieces, either in a straight line or diagonally. In other words each player endeavours to surround his opponents pieces with two of his own, either in a straight or diagonal line. When he achieves this then the intervening enemy pieces are forfeited or captured. The ultimate aim of the game is to cover the board with pieces and the player with the most pieces on the board at the end of the game wins. The game starts with the central four squares occupied, with two of each players pieces arranged diagonally.

The graphics in this simulation are extremely good, and the movement of the pieces is particularly convenient. One simply moves a cursor, shown on the screen, around with the keyboard arrow keys and hits the Enter key when the cursor is on the square to which the player wishes to move a piece. The game is for a single player. He plays the computer at all times. In most microcomputer versions of Othello that is about all there is to it - one simply moves one's pieces around and either wins or loses against the computer, accept, of course, that most simulations provide a number of levels of play. In this version there are ten. The first thing that one notices as being different with this simulation is that in addition to the normal commands, there are two fresh ones. The first is to press the H key and that stands for Hint and the second is to press either the * or M key, for a menu. Dealing with the first, the provision of a hint function is simply to aid the player. When it is his turn, if rather than play a piece he calls for a hint, then the computer will show him the best move for him to make. In this way one could have the computer play itself by simply pressing the H every time! The menu command calls up a menu consisting of six options, the first three are fairly straightforward, namely to quit the game, to set the skill level and to switch the sound, generated by the program, on or off. We are not sure whether the sound will work on all machines but one hopes so because the game starts off with a rather nice tune from Bach! Also, when the game is actually being played, the degree of sound indicates the number of pieces that have been captured. The fourth option is a scanner. When this is chosen then as the computer is 'thinking', the square which it is presently considering is indicated on the screen. The result of this is that these indications flash around the screen to show what possible moves the computer is considering. Furthermore, as the scan is carried out, the computer from time to time, writes to disk a record of the moves of the game. This can be viewed after the game by going back to DOS and entering the command TYPE OTHELLO.LOG. This may also be printed out to a line printer, either with the print screen option built into the machine or with the ECHO command. Thus, the scan command not only gives visual indication of what the computer is thinking, it can also provide a hard copy of the entire game.

The last two unique commands are connected together, they are entitled Dbug and Pause. When Dbug is activated then after every move that the plan makes the screen clears and a graphic indication and some statistics are shown of the actual thinking process of the computer. If Pause is not activated then, as the computer is 'thinking' so the possible moves are continuously shown on the screen. If Pause is activated, then the same thing occurs but there is a pause between each move that the computer is considering. For the serious student this feature is a priceless addition to the game, for he is able to analyse exactly what is going through the computer's mind. A full study of it will enable the player to improve his game immeasurably.

Othello, therefore, is for both the less serious and very serious Othello player. The program enables the former to have an enjoyable game and the latter to study the intricacies of Othello which, to some people, has become close to a science.

UPDATE

BRIDGE

Bridge, described on page 17 of the catalogue, has been very considerably improved and now supports a large number of conventions split into three catagories; Acol, Modern and Precise. Various additional choices have been included in the program including the availability of north being able to play its own hand rather than have the computer play it. There is also a problem mode and other features.

INDEX AND PRICE LIST

Program	Page	RAM <u>Req</u>	Price £	VAT <u>Inc</u> £
Book - IBM Basic Faster and Better	20	-	19.95	19.95
Bridge	17	128	49.00	55.30
DC-10	6	128	17.00	19.55
Electric Pencil PC, including Pencil Ace and Tutor	13	64	100.00	115.00
Electric Pencil Proofreader	15	64	86.96	100.00
Emperor	8	64	16.00	18.40
Forecast Plus	12	128	495.00	569.25
Forecast Plus Demo	12	128	50.00	57.50
Goodness-of-Fit	12	128	195.00	224.25
Goodness-of-Fit Demo	13	128	50.00	57.50
King Arthur	10	64	12.00	13.80
Little Brother	3	128	90.00	103.50
Little Brother Maint. Utils.	4	128	60.00	69.00
Mysterious Adventures - Any 1	7/8	64	14.50	16.68
Mysterious Adventures - Any 3	7/8	64	40.00	46.00
Mysterious Adventures - Any 10	7/8	64	100.00	115.00
Nametager	5	64	65.00	74.75
Othello	25	256	22.00	25.30
Quick-Pro+ II	18	64	62.00	71.30
SandCalc	21	256	59.95	68.94
Share Portfolio and Analysis	19	128	50.00	57.50
StatPac	11	128	395.00	454.25
StatPac Demo	11	128	50.00	57.50
Super Utility	16	64	75.00	86.25
Superzap	1	64	100.00	115.00

Terms and Conditions of Sale

The above prices do not include postage and packing. Orders for single disks should be accompanied by £1 to cover First Class postage and packing. Any adjustment required (such as for those with more extensive documentation) will be made by Credit or Debit Note. Our responsibility ends on obtaining from the Post Office a Certificate of Receipt. It is for the customer to decide whether or not he wishes to have his shipment sent by Registered Post or Receipted Parcel. In the former case he should add £1.10, in the latter, 70p. To save the possibility of delay, we reserve the right to implement either Registration or Receipted Parcel if we feel that the value of the shipment is such that it warrants it.

We reserve the right to make any changes in the specification or price of any program mentioned herein. Our guarantee extends to the medium only, that is to say, the disk itself is guaranteed and the program is guaranteed to load. Programs are not guaranteed to be bug free, although obviously, to the best of our knowledge, they are. Our software is completely supported by us. If, for any reason, including operator error, a program becomes corrupt, we will repair it free of charge. If you find a bug in any of our programs we will do our best to eradicate it and, if it is a serious bug, free updates will be supplied.

We are unable to accept any liability for loss arising from the use of programs or other products sold by us, howsoever it may arise. Due to the ease of reproduction of software, we are unable to accept the return of any programs whatsoever the reason may be, with the sole exception of implementing our guarantee that the program will load. Customers should note that it is their responsibility to make certain that the program which they are ordering is in fact the one which they require. It is also their responsibility to make certain from the descriptions herein that the program will suit their requirements.

The current price list is definitive as to whether a program which is described in the catalogue is presently stocked. Very few are discontinued, but it does happen occasionally. If it is in the price list, we stock; if it is not, we do not.

Molimerx wishes to make it clear that programs published or distributed by them perform in accordance with the Manual or Instructions supplied with the software, and in accordance with the description in this Catalogue. No other representation, or any other sort of assertion, is made. In particular, our programs are designed to work with manufacturers' standard machines and with standard peripherals. It may well be that they will work with others, either to a full or lesser extent. If this is so, then it is a bonus for the buyer but not a liability of Molimerx to support. Specifically, we are particularly concerned at the number of customers who confuse our request that they state the details of their hardware in their orders, with an undertaking by Molimerx that software will work with that hardware, regardless of its nature. We do not accept the responsibility to check whether particular configurations of (particularly) alien hardware will work with our programs. The fact that an order states that a particular program ordered is to be used with a non-standard machine or configuration, does not and cannot place the responsibility on us to check whether compatibility exists. With the proliferation of hardware on the market at the moment, it is totally impossible for us to carry out this exercise.

We therefore repeat – our programs work as advertised and as described in the Manuals. It is for the customer to decide whether he wants to buy the program for his particular configuration and application – whether he informs us of it or not.

A further matter which we must make clear is that we accept no responsibility or liability for what a user does with his software, or intends to do with it. In particular, some people have bought communications software and then complained that it does not work with a particular machine with which it is communicating. It would not be possible for us to check, for instance, a terminal package with every type of equipment that may be connected to the RS232. Nor, with other types of software would it be possible for us to check every permutation that could arise in an end user's application. A zapping program, for instance, may be described in glowing terms in our literature and will work fully as described. This does not mean, however, that it would necessarily be able to look into a disk manufactured on some alien machine, whether we were informed of that use, prior to purchase, or not.







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