Techland Systems Inc SHOEBOX
Time & Expense Management Aid

■ PROFILE

Function • provides a computer facility to record appointments, reminders of future tasks or assignments, and expenses or resources.

Computers/Operating Systems Supported • IBM Personal computer or PC/XT with PC-DOS (including version 2.0); no specific claims are made for operation on a PC-compatible computer system.

Configuration • minimum requirements are 128K bytes of RAM, one floppy disk drive, and a display system capable of operation in 80-column mode (IBM Monochrome Display or Color Graphics Adapter and a monitor capable of 80-column resolution).

Current Version/Version Reviewed • 1.09A-HO/1.09 for the IBM PC.

First Delivery • November 1982.

Number of Installations • approximately 5,000.

Comparable Products • National Microware Sales Planner.

Optional Associated Software • Memory Shift.

Price • $125 retail price.

Vendor • Techland Systems, Inc; 25 Waterside Plaza, New York, NY 10010 • 212-684-7788.

■ ANALYSIS

It is refreshing, in an age where business products are seemingly designed for single-person corporations, to find one which immediately recognizes the fact that most decision/productivity aids will be used on a single system by several persons. SHOEBOX will support literally hundreds of users on the same system, with a single hard disk or with multiple floppy disks.

Any professional with the requirement for public contact, or even contact within the company but outside the organization, will have to deal with the twin issues of appointment management and expense control. These will rarely justify the purchase of a computer, but may provide a worthwhile additional application for a system purchased for other reasons. Because time/expense management is a ''nice-to'' application, packages which support it should be easy to learn, easy to use, and deal with the important aspects of the application without needless frills and nonsense. SHOEBOX accomplishes all of this.

PURCHASE PRICE RANGE

Software Price Range ⬜⬜⬜

SHOEBOX $125

|————————————| $125 to $625

$200　　$400　　$600　　$800　　$1,000
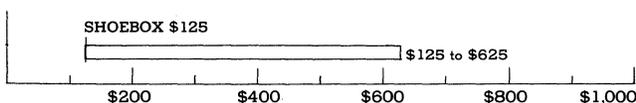
TECHLAND SOFTWARE SHOEBOX PRICING • open bar shows the typical range of prices for **TIME & EXPENSE MANAGEMENT AID** software used in a corporate environment • the vertical line within the bar graph indicates the price of **SHOEBOX**, the evaluated product, relative to the price range of similar products.

PRODUCT QUALITY RATINGS*

	1	2	3	4	5	6	7	8	9	10
ENVIRONMENT										
DOCUMENTATION										
FUNCTIONALITY										
EASE OF USE										
SUPPORT										
SYSTEM INTERFACE										
EXPERIENCE OF VENDOR										

*For an explanation of rating criteria, please refer to the Spreadsheet Features section in the Software Evaluations (805) report.

What SHOEBOX does is establish an environment where a professional can use a computer to record appointments by date and time, enter ''reminders'' of tasks which may have a deadline but not a specific schedule, and maintain records of expenses associated with meeting appointments and carrying out tasks. While the product is designed for time and expense account allocation, it can be applied to allocation of other resources as well.

There are probably no users who could justify the purchase of a computer to run SHOEBOX, and other users may not use a computer often enough to gain advantage from computer-prompted record-keeping. Professionals, managers, or anyone with a tight time schedule and a lot of business expense may gain significantly from computer-assisted calendar and expense management, however, and SHOEBOX is a practical way to get it.

☐ Strengths

Sometimes simple is best. The task of keeping records is a poor candidate for automation if the learning curve cannot be kept to a minimum. SHOEBOX does that by combining useful examples in the documentation with a straight-to-the-point approach to the problem. If it is ever convenient to use time/expense management products, it will be convenient to use this one.

Beginners will find that SHOEBOX deals with the two major problems of novice users; not knowing what to enter at a particular question asked by the program, and losing track of their location in the program flow. Help facilities are available by entering a question mark, but most of the menu structures are very easy to use. If none of the choices at a menu look good, the ESCAPE key will take you to the next higher level of menu, and eventually back to the main menu.

Multiple users can be supported by SHOEBOX, and with several options. A single disk will handle up to about 4 users if a full 350K-byte floppy is available. If an organization can be compartmentalized, any number of sub-groups

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can be defined and a full floppy can be used for each. A hard disk system will support hundreds of users.

SHOEBOX is capable of some surprisingly complex and useful operations. Appointments can be defined as recurring rather than one-time, and the scheme for repetition is flexible. Completed tasks can be marked on the reminder list, and will disappear once the target date passes. You can even search for appointments by name of individual, date, or topic. These more advanced functions impact the basic use of the product very little, so complexity in features need not affect the beginner.

☐ Limitations

What SHOEBOX does not do well, it does not do at all. The product has a specific scope and function, outside of which it has no practical use. You cannot extend it into call recording, sales management, etc.

The descriptive names used by SHOEBOX are cryptic by nearly any standards. An appointment/reminder "item" has a maximum 125 character description. This may make full descriptions of a meeting difficult, and sketchy descriptions may dilute the primary advantage of a computer reminder system.

The copy protection scheme used for SHOEBOX requires that floppy disk users keep the original distribution diskette in drive A:. This is a minimal inconvenience, but loss or destruction of the disk could result in a halt in use of the product until a replacement can be secured.

■ HANDS-ON EVALUATION

SHOEBOX is a simple-looking package, with a rather short manual and an unprepossessing product description. Since appointment and expense products are often rather wide of the corporate mark, we embarked on our installation with some negative predispositions.

These negative vibes were not dissipated by the fact that the distribution diskette is copy protected. We expected the usual problem installing IBM's DOS 2.0 operating system on the disk (it won't fit on most copy-protected packages), but to our surprise an addendum to the manual explained how to set the system up to use the distribution diskette in double-sided mode with the latest DOS. It also covered the use of the product with IBM's PC/XT.

The further we got on the setup of our system, the happier we became. Our office has a staff of twelve specialists, divided into three support groups. To our surprise, the product accepts multiple users. On a PC/XT, we were able to install the system for all 12 specialists, but we later found that the three groups could have been installed on a floppy disk system, using one disk for each group. Each user could also have a unique floppy disk, but some group activities are curtailed by separation of users.

Once the system was set up, we found that teaching others to use it was very easy. We ran a single demonstration session for the organization, then gave everyone a copy of the manual and a sheet of paper with their user name and password. No one had any difficulty with system operation.

Many of the staff were inclined to think that computer aids for expense and time management were not worthwhile.

This attitude was changed through experience with SHOEBOX, and everyone in the office eventually became converted to its use.

☐ User Interface

SHOEBOX uses a full-screen form display, with the bottom portion of the display acting as a menu of available commands and actions. Some entry tasks use the entire screen to prompt the user and define the options available. Extensive option prompting, explanations, and help features are provided, so that the product is exceptionally easy to use.

Menus: A list of valid commands is displayed at the bottom of the screen when the program is prepared to accept a command. The entry of a command consists of keying a single letter, which is normally related to the command name (A=Appointments).

Control characters: The Ctrl key is used in conjunction with the left and right arrow keys to control word-by-word motion, and in conjunction with the END key to erase data from the current cursor position to the end of the line. These functions are active during such text entry functions as appointment and reminder entry.

Function/special keys: ESC is used to exit from a particular command and return to the menu. HOME causes the program to move the cursor to the beginning of the current line while in the text entry mode. Function keys are also used to permit one-key execution of the "Other actions" special functions listed on a separate menu. The function key number coincides with the "Other actions" menu choice; i.e. F5 selects "Other action" number 5 (change system to another user's data area).

Command language: None.

Positive feedback: Correct command choices result in prompts for the next field or execution of the action. Incorrect key-ins are rejected with an explanation.

Status display: No general status display is provided.

Help facilities: A user may request Help with any entry by keying "?" as the first character of the entry field. Command help is requested by keying a "?" at the command menu.

☐ Environment

The operating requirements for SHOEBOX are typical of PC software packages. A minimum of 128K bytes of RAM is required, and a single floppy disk drive. In any practical system, a single disk drive MUST be a double-sided model, and 2 double-sided drives are better. Large organizations should use hard disk systems so that users can be retained on a single volume.

The 80-column display used by SHOEBOX requires either an IBM Monochrome Display, a Color Graphics Adapter with black-and-white monitor of high resolution, the color system with the RGB monitor, or a PC-compatible equivalent of one of these. The manual specifically warns against the use of a color NTSC monitor or TV interface—with good reason. We found that 80-column mode on such a device produces an inferior image.

A printer is recommended for the operation of the system, but is not required.

The distribution diskette provided is copy-protected in an

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unusual way, so that the PHYSICAL MEDIA must be retained in drive A:. It is possible to format the diskette (after backing it up, of course) to double-sided form, then copy the backup to the original media to be run. There is also a procedure for running on hard disk. The provisions for backup and transfer to hard disk are unusual but not excessively difficult.

☐ Documentation

SHOEBOX's documentation is written in an easy style, and is generally free of jargon. The material is well illustrated, and there is a chapter which provides an example of the use of the sytem with a scenario complex enough to demonstrate its capabilities. A preface section provides the new user with a road map to the manual and an idea of how the vendor, Techland Systems, expects it to be used.

The real manual starts with an introduction to the basic features of SHOEBOX and some of its terms. It defines the three physical elements of the SHOEBOX environment; appointments, reminders, and expenses, then tells what can be done with each other. There is a short section on acquiring IBM DOS literacy to the extent needed to run SHOEBOX, and a reassuring support section which invites a troubled caller to call Techland Systems directly. It reminds you to have your serial number and vendor name ready.

The next section of the manual covers the basic operation of SHOEBOX. This takes a user from the start-up process ("type SHOEBOX"), through help lists and "escaping" from problems, to the entry and display of reminders and appointments. A sub-section covers the changing of entries. The material in this section is presented at a very basic level, with summaries and reviews of procedures for reinforcement.

The intermediate operations section follows, and defines the entry of expenses, assigning priorities to reminders, marking tasks as completed, printing reports, and searching for things on the files. This is a little more fast-paced in style, an advantage if the user has run some of the basic operations and is familiar with the system, but a disadvantage for the user who happens to need the entry of expenses (an intermediate function) before entry of appointments (a basic function).

The advanced topics complete the reference part of the document and cover purging old information, changing the system start up information, using a "coordinator" to manage multi-user installations, etc. This material is designed for advanced users, but we were able to use the coordinator material without difficulty.

☐ Functionality

Our use of SHOEBOX was, according to the manual, typical—an office of twelve specialists who make about five calls per day and must account for both time and expenses.

We followed the directions in the manual on installing the program on a PC/XT, and assigned the administrative assistant to the manager as the coordinator of the system. The coordinator has access to the files for all users, and can thus enter appointments and reminders on anyone's records while they are out of the office. We entered everyone's name, nickname, and password onto the system at one time, then had the coordinator establish the expense categories and account numbers which would be used. We had an even dozen expense categories and about eighty accounts.

We also elected to enter the periodic staff meetings on everyone's schedule, which provided an opportunity to test the ability of SHOEBOX to deal with recurring appointments. We had originally thought to enter the weekly meeting each Monday, but SHOEBOX gave us the choice of setting the meeting up as a recurring meeting each Friday. Recurring meetings can occur every specified number of days, on one or more days of the week, or on a specified date each month or year. You may define a range of dates within which the meeting will re-occur also, so sales campaign meetings can be defined weekly during the campaign period.

Most of our appointments and reminders were entered by the coordinator as well. Appointments were scheduled based on client requests, so specialists were allocated on an as-available basis. This required looking at each calendar individually with the present release of SHOEBOX, but a future version will allow searching ALL calendars by time slot, for example, to determine availability.

We used reminders extensively to track in-house projects, such as the researching of a new product for a staff presentation. Reminders are like appointments, but reminders are TASK-ORIENTED, having deadlines or target dates. A reminder may likewise be recurrent, so one of our professionals used one to remind him to have his status report ready three days prior to its due date. A reminder can be prioritized also, and the manual offers a helpful scheme in assigning priorities which we followed with great success.

One of the most significant advantages of the time management portion of the packages was the ability to locate an appointment by the time of the party, the topic, or any other fact which was entered into the system. We had a major problem during our second week of system use involving a delay in the delivery of a system component. We had to reschedule all appointments made on the basis of the original date, and because our policy was to define the product area to be discussed in the description of the appointment, we were able to locate ALL appointments affected in a moment.

The expense portion of the product provides a personal means of tracking expenses and for totalling them by date, category, or customer/account. The manual points out that the system is not rigorous from an accounting/audit point of view, but it is helpful for personal recordkeeping. We used it as a means of recording expenses in the office, and the totals generated were then used to produce the actual expense reports turned in to the main office.

When our professionals were in the office, they used the system themselves, and extended its basic uses as a calendar and record-keeping tool to using the record of past appointments as a tickler for writing status reports. In fact, we eventually required that the appointment list be printed and attached to the status report—it was easier for everyone.

Changes can be made to any item at any time by placing

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the cursor on it and entering the CHANGE function. A special form is presented for the change, and any field may be located with the cursor keys and changed as required. We found that this made the information held by the system more meaningful by making it possible to correct it.

☐ Ease of Use

SHOEBOX is designed to be used by people with many things to do, and it provides both a sound structure and good operating aids. A question mark requests help with a particular function—just enter it in the first character of a field and the system does the rest. On most screens, information is entered in menu or form mode, and an on-screen summary of choices is provided.

Menu formats are particularly helpful because each choice is further explained as the cursor is moved to it. For example, moving the cursor to the "Repeats" field on the appointment entry form causes the choices for that field and their meanings to display at the bottom of the screen.

The searching feature of SHOEBOX is a life-saver for users who make an error entering an appointment and cannot find the item by date. This same feature makes it possible to locate future appointments by name or topic—a much more effective method than listing ALL appointments and looking for a particular one.

Probably the worst part of the system is the set-up, not a surprising factor given the fact that multi-user installations are naturally complex. A section in the manual to cover the entire process would have helped build our confidence, but the material was adequate as long as it was used systematically.

☐ Support

The subject of using multiple floppy disks and dividing our organization by specialty group (there are 5) to assign a disk to each group arose in a design conference, so we checked the manual on it. The topic was not covered, so we called Techland Systems. The people were helpful, giving us the answer to our question (yes, it is supported) and a well-thought-out set of instructions on how to proceed with the task to get the most flexibility for the least effort. We were also told that a future release will permit users of coordinator systems to search all calendars simultaneously. This feature can be used to locate a best time for a group meeting, for example.

The support policies of the vendor are clearly layed out in the manual, and a phone number for support is provided. The number was changed from that given in the manual (as seems often to be the case with micro software vendors), but an addendum enclosed with the manual provided the new number.

LCNS: license fee.

☐ System Interface

There is no information provided in the documentation on the use of SHOEBOX data files with other programming languages or in transmitting them to other systems. You cannot select an option to print the data to disk in order to save a copy, but DOS support for the serial port as a substitute address for the printer permits the transmission of print files.

☐ Vendor Experience

Techland Systems is the developer of Blue Lynx, a popular line of communication products which emulate IBM bisync and SDLC terminals on a PC. They are a new firm—established in 1982.

■ PRODUCT OVERVIEW

☐ Terms & Support

Terms ● SHOEBOX is available on a purchase license basis only, from Techland Systems, Inc through personal computer dealers, software dealers, or mail-order firms throughout the U.S.

Support ● telephone support provided by the vendor; telephone number is provided with the software package.

☐ Component Summary

The software element consists of the distribution diskette which must remain in drive A: while executing the program from floppy disk.

Techland Systems SHOEBOX:

$125 lcns

☐ Computers/Operating System Supported

The SHOEBOX package runs on the IBM Personal Computer on PC/XT with PC-DOS operating system. Techland Systems makes no specific claims that the software runs on PC-compatible systems.

☐ Minimum Operating Requirements

Minimum memory required is 128K bytes. Additional requirements include a floppy disk drive, and a display system operating in 80-column mode with an IBM Monochrome Display or a Color Graphics Adapter and a monitor capable of 80-column resolution.

☐ Features

Capacities ● a double-sided diskette can support a single user for about six months without removing old data; a hard disk can support several users with proper management to delete old entries.

Functions Supported ● appointment management, task management, and expense entry and control.

Number of Users Supported per System ● no limit.

Sharing of Common Files Among Users ● automatic.

Output Media for Reports ● printer is advisable for some reports; others may be routed to display or to printer.

Entry Format ● full-screen data forms displayed at an acceptable speed.

Printed Report Options ● all screen displays may be printed, including calendars and expense summaries.

● **END**

VisiCorp DeskTop/Plan
Financial Planning Package

■ PROFILE

Function ● problem-solving tool for financial analyses.

Computers/Operating Systems Supported ● IBM PC and PC/XT under DOS 1.0, 1.1, and 2.0, and most other compatibles; also available for CP/M systems.

Configuration ● minimum 64K bytes of RAM for IBM PC; 2 disk storage drives; a hard copy printer such as the Epson 80 CPS Matrix, the IBM monochrome display, or the IBM color graphics adapter (or equivalent); and an RGB monitor capable of displaying text in 80-character mode.

Current Version/Version Reviewed ● DeskTop/Plan II was unavailable for review, but will supersede the current review version/Version 1.0 developed by Marton, Inc and distributed by VisiCorp is reviewed.

First Delivery ● 1982.

Number of Installations ● information not available.

Comparable Products ● Business Graphics System from Peachtree Software, Inc; Bits Business Graphics from Boeing Computer Services Company; Graph Power from Ferox Microsystems; BPS Business Graphics from Business & Professional Graphics.

Optional Associated Software ● VisiLink; VisiPlot; VisiCalc; VisiSchedule; VisiTrend/Plot; and most other VisiCorp programs.

Price ● $300 retail price.

Vendor ● VisiCorp; 2895 Zanker Road, San Jose, CA 95134 ● 408-946-9000.

Canada ● Distributor: Citation Software; 1901 Logan Avenue, Winnipeg, Manitoba R2R 0H6 ● 204-632-0559.

■ ANALYSIS

DeskTop/Plan is a software system that turns a microcomputer such as the IBM PC or PC/XT into a problem solving tool aimed at a business problem of most middle and upper level managers and many top executives. The problem that DeskTop/Plan works on is the development and analysis of business plans such as budgets, cost and price analysis, sales forecasts, cash flow planning, capital budgeting, profit and loss projections, and other analyses.

The package has four major subsystems that provide both model building and model execution capabilities: a Model development/modification subsystem to allow the user to define the format, values, and calculation requirements; a What If capability that provides the user with a variety of

PRODUCT QUALITY RATINGS*

	1	2	3	4	5	6	7	8	9	10
ENVIRONMENT										
DOCUMENTATION										
FUNCTIONALITY										
EASE OF USE										
SUPPORT										
SYSTEM INTERFACE										
EXPERIENCE OF VENDOR										

*For an explanation of rating criteria, please refer to the Spreadsheet Features section in the Software Evaluations (805) report.
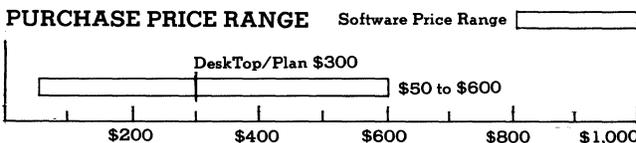
scenarios, based on the execution of user-specified computations; a Results presentation subsystem to present information in tabular format on the video screen or printer, or graphically on the screen or a graphics printer or plotter; and a Utilities capability, which allows VisiCalc data format conversion, and which allows the user to change the DeskTop/Plan configuration.

The model building functions provide for: the entry of format and descriptive contents of reports for a desired analysis; the entry of the values, assumptions, and initial quantities to be analyzed; and the entry of the calculation rules to specify the computations to be performed on the values entered. The data, the specified calculations, and the report descriptions collectively comprise the model.

Once a model is developed, the user can execute the calculations, print reports, plot the computed results, and display either the initial data or computed results on the video screen. DeskTop/Plan allows the user to change or modify the information in any of the files comprising the model and to either replace the original file or create a new file with the modified information. This offers the user the opportunity to create a model once, and to re-use it for any number of files it is designed to accommodate.

The Utilities subsystem allows the storage of the model(s) and files separately. A separate set of calculation rules can also be stored in another Rules file to be used on the same data files, thus offering great flexibility.

DeskTop/Plan is quite a useful tool for those users having a need to run a single model frequently. If the need for the model is only occasional, it would be easier for the user to take advantage of one of the more popular spreadsheet programs, however, the more complex the model, the more useful DeskTop/Plan can become.

□ Strengths

DeskTop/Plan has the ability to include non-printing rows

PURCHASE PRICE RANGE   Software Price Range

DeskTop/Plan $300

$50 to $600

$200 $400 $600 $800 $1,000

VISICORP DESKTOP/PLAN PRICING ● open bar shows the typical range of prices for **FINANCIAL PLANNING** software used in a corporate environment ● the vertical line within the bar graph indicates the price of **DESKTOP/PLAN**, the evaluated product, relative to the price range of similar products.

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Financial Planning Package

of data within planning files and computed files, which allow calculation rules to store interim results invisibly, thus giving appropriate appearance to printed or screen-displayed tables, statements, and charts. The planning and computed files can hold up to 18 columns of data, allowing for the twelve months of the year to be displayed, each of the four quarters, an annual total, and an optional column often used to display a column item such as Percent of Gross. In addition, the displayed results include row names appearing down column 1 (in the workspace, this is not counted), an optional item or account number column, column headings, space for the name of the company, or the title of the displayed results, and room for the time period under study.

The graphics capability built into the package is quite good; however, it would be advised that the user have a printer buffer either in RAM or in the printer itself. Without a buffer a single graph can take as much as 10 minutes to print out, preventing the use of the computer. DeskTop/Plan does not include a print buffer routine itself, and this would make a reasonable enhancement for a new release.

☐ Limitations

The lack of a printer buffer would have to be considered a major weakness of the package, except that this appears to be a standard problem with most financial and spreadsheet programs. More significant is the tedious work involved in creating the calculations rules file, which must be present to allow the program to execute. It should be pointed out that while it may take a new DeskTop/Plan user as much as a full day to set up the calculations rules, planning file, and model definition file, once done, these steps need not be repeated for the same model again unless the file is destroyed. To be prepared, simply save a backup disk with model definition files and calculation rules files on it.

■ HANDS-ON EVALUATION

The instructions for adding the needed DOS files, BASIC interpreter, or the extended BASICA and utility programs onto the DeskTop/Plan program diskette are included in Appendix G of the document. These instructions are aimed at an IBM PC user that has 2 floppy drives. No explanation is found on differences for users with either a single drive or for hard disk installation procedures. The choice of BASIC or BASICA is dependent upon whether the color graphics adapter is installed; if it is, then BASICA is required. It is also necessary to install the DOS Time, Data, and CHKDSK functions.

If one has an IBM PC/XT, the procedure is simple. Type the MKDIR command, followed by the directory name. Move into that directory with the CHDIR/ command, followed by the name given the directory, and execute the Copy a:*.* command. Next, add the DOS commands and BASICA to the directory if they are not resident in the Root directory. Some users prefer to keep DOS in a separate directory to make the reading of the Root more comprehensible.

Once the needed programs are either on the program diskette or in the newly made directory, starting up Desk-

Top/Plan is easy. Simply type BASICA MENU from the DOS prompt and you are loaded. It is possible to include the Autoexec.bat file in a hard disk subdirectory or on a floppy, thus making the program boot automatically. DeskTop/Plan can also be loaded from within BASIC or BASICA by simply loading Menu and then typing "run," or by pressing the F2 key.

Using the existing sample files included on the program disk to play "what if" games or to display a graph is quite easy. The same goes for printing a graph from one of the sample files or from one the user creates. The documentation recommends that the first files created by the user be simple ones to test the way the program works. This is good advice. If one were to attempt to define a model with only 6 columns, such that the 4 quarters of the year were shown along with an annual totals column and a Percent of Gross column, and further limit the definition to 10 row (item) accounts, it would be far less time consuming than to attempt a larger model. It is important, nonetheless, to reserve sufficient extra nonprinting rows to allow interim results to be stored. Once the number of rows and columns for a file have been defined, they can never be changed. To effect the change is to, in effect, build a new model, complete with the keying in of all the account headings, column headings, worksheet titles, calculation rules, and planning values.

This is the type of program where up-front patience is required, but toward a truly worthwhile result. Once the model is fully defined, the calculation-rules file established and stored, and planning values entered and stored, the use of the program is fast, accurate, and a real time-saver.

DeskTop/Plan is a menu-driven system, and not difficult to understand; it is simply time consuming to set up the first time. Although the program is billed as a business tool, its model definition capabilities can make it useful for other spreadsheet uses as well. There is an extension of the calculation rules referred to as custom rules. It allows any computations or any logic that can be programmed in BASIC to be incorporated into a model. Up to 20 custom rules may be incorporated into the Values function.

With DeskTop/Plan, there is a trade-off between power and flexibility on one hand and speed on the other. Since the program relies on Interpreted BASIC, the speed is somewhat limited. This is noticeable to the user due to the "wait" messages flashed across the bottom of the screen while a function is being accomplished.

☐ User Interface

DeskTop/Plan relies on menus and 1 or 2 key combinations to perform the program functions. The program could have benefited from an accommodation of the IBM Function keys, but in the reviewed version, DeskTop/Plan is essentially a reformatting of the Apple version. Actually, this program is referred to as DeskTop Plan/PC, but until it is upgraded to make use of the power afforded by existing keys, it is more appropriate to call it by the name on the outside of the package, DeskTop/Plan.

Menus: This program is menu driven. It is necessary to go through these to perform any of the functions; however, the

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menus for entering/modifying new values and what if values also allow direct keyboard entry to graphics and printing.

Control Characters: Control characters are not included nor required due to the key sequences allowed within the menus.

Function/Special Keys: No use of function keys, but it is necessary to depress the alternate key in concert with command entries.

Command Language: None is provided, but hooks are built into the Calculation Rules menus to allow the user to call up customized rules.

Positive Feedback: One of the few programs that provides the user messages when something has been done correctly; usually a message that instructs the user to watch the screen. Audible beep tones are also used in combination with error messages to indicate an incorrect action is being attempted.

Status Display: The main menu uses the top third of the screen to indicate selections available to the user. A small message appears across the bottom of the screen indicating how to make a specific choice, as well as how to end the menu. The time is shown along line 25 of the display, and is also entered along with the date on any report requested for printout.

Help Facilities: None provided other than documentation.

□ Environment

As mentioned, DeskTop/Plan was originally designed for use on the Apple. The reviewed version is a quick attempt at formatting it for use on the 16-bit MS-DOS operating system to gain a share of the lucrative IBM marketplace. The program will run on IBM compatibles, and in its earlier version, under the CP/M operating system for the Apple and others. A newer version has been released. DeskTop/Plan II is designed to operate on microcomputers in the CP/M environment.

DeskTop/Plan requires 64K bytes of RAM to operate (the minimum IBM configuration). The BASIC programs have compressed code locks preventing the user from listing them. A question arises as to whether or not it would have speeded program execution by providing a compiled version. This would have seemed appropriate except for the need to accommodate user/programmer-written subroutines to add custom rules to the power of the system.

□ Documentation

As with other VisiCorp documentation, this is a good piece of work. A 2-page addendum is present with Release 1.1 for the IBM. In addition, there is a preface indicating equipment and operating system requirements, a detailed table of contents, listings of chapter contents at the start of each, liberal use of screen display images, a list of exhibits, and several appendices, including instructions for setting up a serial printer, how to make a self-starting system, a description of a capital investments model, an alternative method for entering custom rules, a command summary, a system

operations summary, and details regarding model development and the model execution cycle.

While not in an appendix, error processing is covered in-depth in Chapter 8, including a listing of the types of errors one may make, and insight into methods to avoid them. The only difficult area of the documentation is the treatment of the establishment of Calculations Rules. The author of this section appears to have become tired of writing, at least in a straightforward manner, and this is to the new user's disadvantage since it is the single most difficult part of the DeskTop/Plan program.

□ Functionality

DeskTop/Plan includes 23 standard Calculation Rules plus the command for Custom Rule. The program will accept up to 20 user-written commands written in BASIC for incorporation into a model. To work properly with DeskTop/Plan, the custom rules must be numbered from 11000 to 11999 for custom rule number 1; 12000 to 12999 for custom rule number 2; 13000 to 13999 for custom rule number 3; etc. The BASIC program named VALUES on the program disk has REM statements indicating where to place each Custom Rule by number beginning at statement number 11000. Each statement must also end with a RETURN statement, as in statement number 11999.

Without the Custom Rules, the program contains an extraordinary array of functions. For the more sophisticated user/programmer, the power of the program is enhanced even further.

The size of the DeskTop/Plan worksheet varies dependent upon the number of columns used in a model. A model that uses 18 columns, for example, can accommodate up to 400 rows of data. One using only 6 columns, would allow up to 1200 rows of data. While the program specifies that it will run in a 64K-byte RAM, the instructions for determining the matrix size notes that the number of columns can be divided into 7,200 for a 96K RAM. The number of cells in a matrix to be run in a 64K RAM configuration is 3,600. The resultant size of a matrix following the division is adjusted to the next lower increment of 10. If the result, as shown above, exceeds 1,000, it is reduced to 1,000, because that is the maximum cell size for a matrix on a machine with 96K bytes.

An important part of the package is the graphics capability. Support is present for bar charts which can accommodate any two rows and any two columns, for actual line chart representations of the same size, and for relative chart representations of any 3 rows of data and any two columns. The font available for legends and axis titling is large, readable, and similar to that available in font set 1 of Lotus. It is a shame the package does not include a buffer for printing either reports or graphs since it can take as long as ten minutes to print out a single graph on an Epson or IBM graphics printer.

□ Ease of Use

The Getting Started section of the documentation amply demonstrates the true power of DeskTop/Plan in a fashion anyone familiar with either computer usage or financial

VisiCorp DeskTop/Plan
Financial Planning Package

modeling can understand. Once the needed DOS files and BASIC(A) are transferred to the program disk, it is very easy to load; in fact, the documentation explains how to make a disk boot automatically.

DeskTop/Plan can be accessed directly from DOS by typing BASIC (or BASICA) MENU. If one is already in BASIC(A), it is only necessary to use function key 3 or to type "Load menu" to enter the program. Exiting the system is accomplished by depressing Alt+Q. This returns the user to BASIC(A), whereupon one types "system" to return to DOS.

To build a model with DeskTop/Plan, it is advised that one first decide the size of the matrix to be used, and add to that a number of rows for the storage of interim results prior to defining the model. This is done by using the system configuration facility before entering into the Define a Model facility. It is important to do this, and to be sure the matrix is large enough to handle the total number of rows and columns, because once specified, the matrix size cannot ever be changed. What this means is that if the matrix is too small, and if one has gone through the effort of keying in column headings and row names, it was all done for naught.

In this sense, a general purpose spreadsheet has significant advantages over DeskTop/Plan, but the documentation and the predefined calculation rules make the package worth the price alone. To accomplish the same functions in any of the available spreadsheet packages would take considerably more time than with DeskTop/Plan, unless one had found appropriate templates to handle the formulae required.

The specification of the Calculation Rules is by far the most difficult part of using DeskTop/Plan. It is a long and tedious process which requires some pencil and pad planning to make it work right the first time. Once accomplished though, it need never be done again (at least for the same model), unless the user has no back-up disk and loses data in the hard disk or in RAM.

☐ Support

Technical and customer support are available to users that have filled in and returned their warranty registration cards. If the staff at the point of purchase cannot answer a particular problem, there is a hotline available to users. Since this package may present new problems to users, it is advised to either learn some of the Calculations Rules before purchasing, or to send in the warranty card immediately upon purchasing the package.

☐ System Interface

DeskTop/Plan contains its own internal data format, but also supports the DIF files via its conversion facility, thus allowing the transfer of files from popular spreadsheets such as Lotus and VisiCalc. The program also supports a PIC file format for the output of its graphics capabilities to a printer or plotter. While the Lotus program can read these PIC files, there is no need to do so, since the graphics are already present. One may still wish to do so in order to take advantage of the variety of fonts available in Lotus. Other

than fonts, these .PIC files cannot be altered, for example, from a bar or line chart to a pie chart.

☐ Vendor Experience

VisiCorp is a pioneer of microcomputer applications software, having introduced the extremely popular VisiCalc in the late 1970s while still known as Software Arts. That one program has been credited with convincing the public that there was a place for personal computers in business and in the home. The company has a long-standing reputation of supporting the products it distributes. Their next step should probably include the introduction of an 800 hot-line service to further increase the already good technical support the company provides.

■ PRODUCT OVERVIEW

☐ Terms & Support

Terms ● DeskTop/Plan is available for purchase only from the publishers, and from computer dealers, distributors, software dealers, and discount houses in the U.S. and abroad.

Support ● technical and customer support is only made available to those users who have filled in and returned their warranty registration cards; for those who have, product upgrades are made available at an unspecified discount from the vendor's list price; free replacement of defective disks is also provided for the first 90 days, after which the charge is a nominal $20; it is not necessary to return the defective disk ● backup disks are available (with the same warranty card requirements) for $20 each; hot-line telephone technical support is available without charge; however no 800 number exists; the hot-line number is 408-942-6000 and is available between 8:00 AM and 5:00 PM (Pacific Time); customer support can also be acquired through the main corporate number 408-946-9000, via mail, or by Telex #172159.

☐ Component Summary

DeskTop/Plan is supplied on a 5.25 inch, single-sided, double-density diskette. Prior to using DeskTop/Plan, it is necessary to install IBM DOS and BASIC(A) on the program diskette. This is accomplished by running the install program on the diskette. The program is now ready to run by either entering BASIC(A) and typing Load a: "menu", or by typing BASIC(A) from the DOS prompt.

DeskTop/Plan:

	$300 lcns

☐ Computers & Operating Systems Supported

VisiCorp supports the IBM PC and PC/XT; IBM compatibles; the Apple II, II+ and Apple III; the Radio Shack TRS-80 models; and a host of others compatible with either Radio Shack or Apple. MS and PC-DOS 1.0, 1.1, and 2.0, and CP/M operating systems are supported.

☐ Minimum Operating Requirements

DeskTop/Plan requires 64K bytes of RAM to operate. At least 2 disk drives must be present, as well as a printer that can accept 80-column print, and a monochrome or RGB monitor compatible with the IBM PC or PC/XT that displays in 80-column mode.

☐ Features

Command Type ● necessary to depress the Alt key in conjunction with single characters to select the commands presented in this menu-driven program.

Financial Functions Supported ● virtually any financial function for which the user can build a model; the program is more of a

LCNS: license fee.

VisiCorp DeskTop/Plan
Financial Planning Package

"modeling" tool than a financial package; while a diverse number of financial functions can be accommodated, the package offers the great flexibility in designing mathematical models to accomplish a needed task.

Command Structure ● commands are always accessed from the program's menus; main menu allows the choice of: develop a model, execute a model, present results, utilities, establish formulae, graph, VisiCalc convert, new values, monitor results, and quit.

Account Types ● virtually any account type can be specified as an integral part of the model definition.

Error Recovery ● errors can be eliminated by hitting the escape key, thus moving the program back one step, or corrected by either not saving and restarting, or by selecting the change command in a new files menu.

Output Commands ● report menu, which is the print routine and the graph command menu, or the save-to-disk menu, and the VisiCalc convert.

Print Facilities ● prints the results of the model as defined, and includes print set options to allow compressed print; full 18-column width requires 256-character width, and must use the compressed print option to allow printing on a 132-character page; graph output prints sideways on an 80-character width, utilizing three different fonts; large font is used for the axis headings and graphs title, a medium font for the legends, the graphics fonts for the line and bar charts themselves.

File Transfer Capabilities ● possible to use the VisiCalc convert to output to VisiCalc or to Lotus, or to transfer the PIC files to Lotus to take advantage of the more advanced graphics features of the package.

Window Capabilities ● no window capabilities are included; for viewing purposes, the point command can enable the user to the new position; the location is brought into view next to the row and column headings, thus giving a semblance of window capability.

● END

VisiCorp VisiCalc
Spreadsheet Package

■ PROFILE

Function ● development of financial reports, budgets, and forecasts using electronic images of conventional spreadsheets.

Computers/Operating Systems Supported ● IBM Personal Computer, PC/XT, PC-compatible products, Apple II, III.

Configuration ● 64K bytes of RAM, 1 single-sided or double-sided diskette; hard disk supported if available; monochrome display or color graphics adapter required, printer optional; DOS 1.0, 1.1, or 2.0 required for IBM products; equivalent MS-DOS required for PC-compatible products; Apple products are self-loading.

Current Version/Version Reviewed ● 1.2 extended memory version for the IBM PC.

First Delivery ● August 1979.

Number of Installations ● 700,000.

Comparable Products ● Lotus Development Lotus 1-2-3, Microsoft Multiplan.

Optional Associated Software ● none.

Price ● $250 retail price.

Vendor ● VisiCorp; 2895 Zanker Road, San Jose, CA 95134 ● 408-946-9000.

Canada ● Distributor: Citation Software; 1901 Logan Avenue, Winnipeg, MB R2R 0H6 ● 204-632-0559.

■ ANALYSIS

VisiCalc is the original electronic spreadsheet program, and has thus become the the de facto standard for such packages. Commands are organized into a hierarchical menu structure with a straightforward command format which makes the package easy to use.

The "worksheet" is maintained entirely in memory during use, so worksheet size is restricted by the memory available—a 64K-byte system has about 22K bytes for worksheet storage. Additional memory will be used for larger worksheet storage, but the manual lists memory options only to 256K bytes.

VisiCalc employs a custom file format for its worksheet storage but may optionally save data to a Data Interchange Format (DIF) file. Other software packages also employ the DIF structure as an option, making exchange of information with those products easy.

PURCHASE PRICE RANGE

Software Price Range

VisiCalc $250

$125 to $500

$200 $400 $600 $800 $1,000

VISICORP VISICALC PRICING ● open bar shows the typical range of prices for SPREADSHEET software used in a corporate environment ● the vertical line within the bar graph indicates the price of **VisiCalc**, the evaluated product, relative to the price range of similar products.

PRODUCT QUALITY RATINGS*

	1	2	3	4	5	6	7	8	9	10
ENVIRONMENT										
DOCUMENTATION										
FUNCTIONALITY										
EASE OF USE										
SUPPORT										
SYSTEM INTERFACE										
EXPERIENCE OF VENDOR										

*For an explanation of rating criteria, please refer to the Spreadsheet Features section in the Software Evaluations (805) report.

In addition to the conventional accounting operations associated with spreadsheets, VisiCalc supports modeling, simple trigonometric functions, logarithms, logical operators, exponents, and table lookup.

The versatility of VisiCalc makes it applicable to nearly any business application which could or would fit a spreadsheet format, and to many calculation applications besides. While it is not suitable for complex scientific or statistical use, its friendly format and product scope have made it a favorite of corporations.

In spite of its popularity, VisiCalc is a somewhat dated product. Recent competitors have offered users significant advances in functionality while retaining the basic command structure of VisiCalc and even compatibility with existing VisiCalc files. While VisiCalc was once an automatic choice for spreadsheet programs, corporations should now explore the other alternatives as well.

□ Strengths

A proper balance of functionality and ease of use seem to characterize VisiCalc. While other more modern spreadsheet programs have provided greater functionality, VisiCalc users become adjusted to the command structure of their original program and refuse to desert it. The key characteristic of the command structure is that things you do frequently are made very easy, and only advanced and seldom-used options are complex. An experienced VisiCalc user can literally sit at the computer and work out a problem as easily as one could do with a conventional paper spreadsheet and a pencil, but with considerably greater accuracy.

The tutorial section of VisiCalc's documentation is very comprehensive, covering every phase of operation and dealing with the pitfalls encountered along the way. It contains samples, screen illustrations, and keystroke-by-keystroke instructions. The combination of excellent doc-

VisiCorp VisiCalc
Spreadsheet Package

umentation and functional design make it perhaps the first truly user-friendly program.

□ Limitations

VisiCalc is not a new product, and competitive packages have had the benefits of years of user experience with VisiCalc to mold their basic designs, functions, and operator interactions. VisiCalc has remained basically the same during this period, and to some extent has been passed by.

Concepts such as HELP keys and displays, which have become almost a standard of any type of business software, are absent in VisiCalc. The ability to give cells symbolic names for later reference in formulas is rapidly becoming a standard feature in spreadsheet programs, and VisiCalc does not provide it.

VisiCalc also lacks some of the more sophisticated statistical functions found in other spreadsheets. These functions, while not necessary for the traditional accounting/financial uses of the package, would support its extension into other business areas as corporate commitments to microcomputers grow.

■ HANDS-ON EVALUATION

Somehow, when you open the package and take out the material, VisiCalc seems to tell you that it has been around for a long time. The documentation is polished and professional, and the software itself runs on the very first version of IBM's DOS to be released , Version 1.0. Given the extensive life cycle of the product, installation of VisiCalc in a business office environment could be expected to be smooth.

Our first surprise was that there were no instructions on installing VisiCalc on the hard disk. Copying it won't work—it is another of those convenient copy-protected programs. We also had a problem installing DOS on the program diskette. The instructions call for the removal of a write-protect tab on the diskette during installation. Removing the tab is easy enough, of course, but it's a gutsy move when you can't make a backup copy and when the directory shows that the program is only a couple of hundred bytes long. A program like VisiCalc HAS to be bigger than that, leaving the question "where is it" unanswered. We were comforted by the fact that VisiCorp included a PC-DOS file which would make the VisiCalc program run automatically if the disk were booted. We removed the tab and tried it, and it worked.

Everyone liked VisiCalc, but no one loved it. People tended to tinker with it, finding ways to do things and occasionally showing their work off to friends. When the "exploratory" phase was over, they were all able to apply it to basic business problems without difficulty.

□ User Interface

Menus: A simple list of command options. Without explanation, appears when a "/" key is pressed.

Control characters: None.

Function/special keys: None.

Command language: Commands consist of an escape character followed by a single alphabetic character representing the command name.

Positive feedback: Positive feedback is provided for all commands in the form of field prompts. Commands capable of destroying data require verification before they are performed.

Status display: Three lines of status information are provided during normal entry and calculation. Information provided includes type of entry, coordinates of entry, and format information.

Help facilities: None.

□ Environment

VisiCalc is one of the most lenient packages in terms of computer environment. It will run on a 64K-byte system with a single disk drive and under DOS 1.1. Additional memory will be used up to 256K bytes, but neither the documentation nor experience was able to confirm the ability to use memory beyond 256K bytes. Both 40- and 80-column display format is supported, making VisiCalc a suitable spreadsheet package for users who have a Color Graphics adapter and do not have a monitor with 80-column resolution. Some users found the 40-column display more readable and chose to use it even though the monitor would have supported 80 columns.

The diskette is copy protected and has a write-protect tab. Installation instructions tell you to remove and then replace the tab as the system is installed. This somewhat unusual precaution made our installer uncomfortable, but the system installation proceeded without difficulty.

We were unable to find instructions for the loading of VisiCalc onto the hard disk. The program cannot be copied there by any standard DOS program.

□ Documentation

The documentation supplied with VisiCalc consists of a tutorial/reference manual and a pocket reference guide. The tutorial makes up the majority of the manual, and is a progressive, step-by-step teaching guide which leads you through all VisiCalc's features. The tutorial also deals with some of the formula pitfalls such as forward or circular references, something which we found people usually did once in any case. It is desirable to have the computer system running when the manual is used, since the key-by-key approach is hard to visualize without the program and the display screen. There are many illustrations in the tutorial section.

The reference section of the manual is organized alphabetically by command, so users must know the command in order to get detailed information on it. The index helps to offset this problem, and the pocket reference guide is normally enough to give a user with some experience the mental jog needed to select the proper command.

VisiCorp VisiCalc
Spreadsheet Package

☐ Functionality

VisiCalc set the standard for spreadsheet programs, so its functions are pretty much what would be expected. Modern usage of spreadsheets is probably slightly broader than that market for which VisiCalc was designed, however. The accounting users felt that functions for financial computations could have been expanded.

Movement through the spreadsheet is via the cursor control keys, but there is no "Go to end of column" or "Go to end of form." Data entry into cells can often proceed without keying of a leading command; numbers are understood as the start of numeric data and alphabetics as the start of text. Treating the end of the text is another matter. Text keyed longer than a cell is truncated, not extended into the next column, even it that column is clear. Numerics can be entered as constants or as cell references. Formulas may contain numbers, cell references, or special functions such as the value of Pi. Formulas support the use of parentheses for controlling the order of evaluation, and for a change the manual does not spend several pages discussing the priority of calculation—if parentheses are not used everything is left to right.

One problem quickly encountered with VisiCalc deals with the way in which it handles cell references in formulas. Formulas are written with cell references in absolute form, meaning that the cell in row 4, column D is designated D4. Copying the formula to another part of the sheet, as is done when you want to total several separate columns, requires that you identify the formula handling of cell references as absolute or relative. Simple spreadsheet structures have few absolute references. Column totals represent the sum of the items in the column, not the sum of items in other areas of the spreadsheet. More complex spreadsheet forms without the traditional row/column structures may involve either absolute cell references, relative references, or both. An example was a discounted price list. We specified the dealer discount at the top of the sheet and then applied it to total prices. Each column total formula contained a relative set of references to the detail above it, and an absolute reference to the cell containing the discount. No matter which way that formula is copied it is wrong, and must be manually corrected. We would have preferred a way to indicate that a cell reference was relative or absolute when the formula was first entered; everyone seemed to be able to make that distinction at that time.

Related to this problem is the question of referencing those odd constants tucked away at various parts of the form. We found everyone searching the worksheet for references whenever a non-traditional structure was used. No facility to give a symbolic name to a cell exists.

Worksheet saving and loading is supported in both the "private" form used by VisiCalc and in the Software Arts DIF file structure. In VC form, only the entire worksheet can be loaded or saved, but in DIF form non-overlapping worksheets can be loaded one on the other. Worksheet printing, on the other hand, can be specified either for the entire worksheet or for a part of it. Most popular serial and parallel printers are supported.

VisiCalc has one further, almost terminal, surprise. If you save a worksheet too large to fit on disk, the old copy of the worksheet is destroyed before it is determined that the new one will not fit. Preventing this problem is a function of limiting the number of worksheets on any given diskette, and of making separate backups frequently.

☐ Ease of Use

Users familiar with other packages were disappointed to find no HELP function in VisiCalc. The command menu, displayed in response to keying a slash ("/"), contains a single string of characters "BCDEFGIMPRSTVW-." You cannot enter a letter and get an explanation of the command. Typing letters experimentally produces beeps, prompts, or (ominously) no visible reaction. One user spent nearly 5 minutes trying to quit ("/SQ" is the correct sequence). For several days our users could be found leafing through the manuals in search of a function.

Once a degree of familiarity is obtained, however, the structure of the commands becomes logical and obvious. Once the correct command is identified, the system relents and provides prompts for each field required for the command's execution. The VisiCalc user seems to acquire a marked "brand preference" which makes other packages somehow seem "wrong."

Basic spreadsheet operations are extremely easy and logical, and even formulas and other more complex functions work as expected if the structure of the worksheet is the traditional row/column. Spreadsheets with a more free-form structure produced problems because cells could not be named. Users tended to make lists of the key cells on paper beside the computer, and the difficulty of producing large, free-form reports discouraged some creativity in document design.

☐ Support

We attempted to call the VisiCorp support number to find the way to install the package on hard disk. We called at noon, Pacific time, which is within the working hours for the center defined in the support documentation. The number is not an 800 number. A machine answered our call, informed us that the hours were 8 to noon and 1 to 4, then hung up. On a later call, a nicer machine asked us to wait and thanked us for our patience and cooperation. After a wait of about a minute we were answered by a helpful person who told us that we did not have the version for a PC/XT. That version, V-204, could be ordered for an additional $20.

Generally, in spite of the phone machines, VisiCorp provides good support for its software. Technical questions are nearly always answered on a single call, and if they promise to call back they invariably do so. The requirement that users pay a special fee for a new version to replace one purchased retail only the week before is unsettling, however.

VisiCorp VisiCalc
Spreadsheet Package

☐ System Interface

VisiCalc provides some internal support for exchange of information with other computer software or even other systems. A special file format, called a DIF file, was designed by Software Arts, the developers of VisiCalc. This format is outlined in the manual and program examples in BASIC are provided for its manipulations. The material and samples make it possible to develop simple programs on other computers which can be sent to the PC and read into VisiCalc. Although VisiCalc can send print files to the communication port, it cannot send DIF files. Other communication utility programs permit DIF exchange with other systems, and we were able to create a simple DIF file on a minicomputer and send it to the PC for processing with VisiCalc.

VisiCorp supplies an address where interested users can write to obtain a list of other software suppliers who support the DIF formats. Many graphics package vendors have chosen to do so, and other popular spreadsheet packages provide DIF support as well.

☐ Vendor Experience

VisiCorp is THE experienced spreadsheet software vendor, and their support specialists are quite familiar with the package and its applications. Since VisiCalc has been an extremely popular corporate package, they are also used to dealing with large companies. Our version of the program was an Extended Memory form which was brought out in response to business needs for larger worksheets.

While VisiCorp could bring considerable experience to bear on design upgrades and new features, they are held back by the need to retain compatability with the large base of existing VisiCalc users and the wealth of third-party books and training courses which help make VisiCalc an attractive first-user choice.

■ PRODUCT OVERVIEW

☐ Terms & Support

Terms ● VisiCalc is available on a purchase-only license from VisiCorp, computer dealers, software dealers, or mail order firms in the U.S. and internationally.

Support ● a telephone support center is maintained by VisiCorp (although not with an 800 number) and technical problems are generally handled quickly and efficiently.

☐ Component Summary

The software elements of 3 programs: VC80, VC40, VCONFIG. VC80 is a spreadsheet package for users with an IBM mono-

LCNS: license fee.

chrome display or with Color Graphics Adapter and a monitor with 80-column resolution, supplied on a single-sided diskette in IBM format. The diskette is used only during program load. VC40 is similar to VC80 but supports 40-column display for lower resolution monitors used with the Color Graphics Adapter. VCONFIG is a utility program to convert the automatic loading DOS file (AUTOEXEC.BAT) to load the proper version of VisiCalc depending on a user designation of the type of display used on the system.

VisiCalc:

$250 lcns

☐ Computers & Operating Systems Supported

VisiCalc is supported for the IBM PC, PC/XT, PC-compatible systems and Apple II and III.

☐ Minimum Operating Requirements

VisiCalc requires 64K bytes of RAM, 1 single- or double-sided diskette, monochrome display or color graphics adapter. A printer is optional and hard disk is supported if available. DOS 1.0, 1.1, or 2.0 is required for IBM systems; equivalent MS-DOS is required for PC-compatible systems; Apple products are self-loading.

☐ Features

Spreadsheet Size ● size is 254 rows x 63 columns; minimum memory configuration systems of 64K bytes of RAM have a maximum worksheet size of 22K bytes; maximum configuration systems having 256K bytes of RAM have a maximum worksheet size of 214K bytes.

Command Type ● command identifier (/) followed by alphabetic code.

Financial Functions Supported ● the only financial function provided is Net Present Value (NPV).

Statistical Functions Supported ● a function to calculate the average value of a list of numbers is provided.

Cell Reference ● cell reference is by cursor positioning and cell coordinate; cell references may be absolute or relative; commands may specify cell ranges where appropriate.

Window Capabilities ● two windows with full VisiCalc functionality are available; windows may be set vertically or horizontally.

Range Facilities ● the only command supporting specification of a range of cells in row or column is the replicate command, which allows the contents of a cell or range to be duplicated; the only command allowing specification of a block of cells is the print command; cell ranges are specified using cell coordinates or cursor positioning.

Print Facilities ● all or part of the spreadsheet may be printed; areas to be printed are delimited by ranges; titles may be printed by including them in the area delineated by the range; files may be printed to disk, and the save option allows spreadsheet format information to be printed.

Load/Save Facilities ● spreadsheets may be loaded or saved, and also saved (as values only) in DIF format; files may also be deleted; spreadsheets may be loaded one on top of another; new data replaces old when spreadsheets are overlapped; a blank field in the new spreadsheet does not replace old data, allowing two spreadsheets to be combined.

● END

VisiCorp VisiFile
Data Management Package

■ PROFILE

Function ● database management, primarily of business oriented data.

Computers/Operating Systems Supported ● IBM Personal Computer, PC-DOS 1.1 or 2.0.

Configuration ● minimum 64K bytes of RAM, 2 floppy disk drives; double-sided drives are recommended; additional memory over 128K bytes allows larger records, with more and larger data fields; larger configurations also perform index updating functions immediately, instead of at program termination; configurations having less than 128K bytes of RAM cannot be configured for serial interface printers.

Current Version/Version Reviewed ● 3.0/Version 2.2 for the IBM PC.

First Delivery ● May 1980.

Number of Installations ● 60,000.

Comparable Products ● Software Publishers pfs:File, Ashton-Tate dBase II.

Optional Associated Software ● none.

Price ● $300 retail price.

Vendor ● VisiCorp; 2895 Zanker Road, San Jose, CA 95134 ● 408-946-9000.

■ ANALYSIS

VisiFile is a menu-driven database management package with a business orientation. It possesses the general command structure and operating procedures of the other VisiCorp products such as VisiCalc and VisiWord. This structure makes the package very easy to learn and use.

The record work area in VisiFile is the computer memory. Small configuration systems may be hampered by a lack of capability. Systems with less than 128K bytes of RAM are restricted to records of 1000 bytes, with a maximum of 40 data fields. These systems are also unable to support a serial printer interface. Larger configurations allow record lengths of up to 2048 bytes, with up to 104 data fields.

VisiFile supports the popular DIF file structure, and in addition the file formats for the data and data dictionary files created by VisiFile are provided. Integration with other products, particularly other VisiCorp products, is thus greatly simplified.

PURCHASE PRICE RANGE

Software Price Range

VisiFile $300

$75 to $500

$200 $400 $600 $800 $1,000
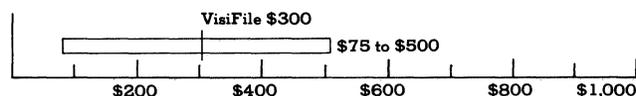
VISICORP VISIFILE PRICING ● open bar shows the typical range of prices for **DATA MANAGEMENT** software used in a corporate environment ● the vertical line within the bar graph indicates the price of **VISIFILE**, the evaluated product, relative to the price range of similar products.

PRODUCT QUALITY RATINGS*

	1	2	3	4	5	6	7	8	9	10
ENVIRONMENT										
DOCUMENTATION										
FUNCTIONALITY										
EASE OF USE										
SUPPORT										
SYSTEM INTERFACE										
EXPERIENCE OF VENDOR										

*For an explanation of rating criteria, please refer to the Data Management Features section in the Software Evaluations (805) report.

VisiFile is an easy product to adjust to, particularly for users of other VisiCorp products, and offers an adequate number of features. It is particularly suited to applications where the level of computer expertise is low and no central data processing support is available. It is not, however, a full-feature database package and should not be purchased by organizations which require such a system.

□ Strengths

VisiFile's main asset is its menu-oriented command structure. Records, indexes, and reports may be defined almost without reference to the manual, while file maintenance and printing can be done directly from the menu without prior experience. The program even reminds you to make a backup file, and the importance of backups is heavily stressed in the manual.

Some features of VisiFile are particularly convenient. Reports may be printed to the display, allowing report formats to be checked, and data to be accessed without the necessity of hard copy. The index approach to file organization minimizes the amount of disk space used, and allows a file to be sorted according to many different keys with minimal impact on storage.

VisiFile also provides for the merging of text files with database information. This allows the creation of form letters containing information from the database. User-defined information may be added, and text files may be chained together or included within one another, providing a flexible tool for the creation of documents in quantity.

□ Limitations

The manual for VisiFile is written in a somewhat tutorial manner, and the reference qualities of the document are marred by this. Unfortunately, no real tutorial benefit is provided. Some early sections of the manual tend to be too cryptic. Where editing functions did not work as expected, the manual often gave no clues on their correct use.
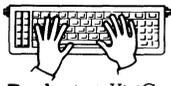
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The distribution disks containing the VisiFile programs are copy protected, and VisiFile does not support operation from a hard disk. This is unfortunate, as the package consists of 60 files on 3 diskettes, and it is often necessary to change diskettes in order to change from one function to another. VisiCorp also recommends the use of double-sided disks, allowing larger data files, but you cannot copy the programs to one.

The product is written at least partly in BASIC, and certain functions are somewhat slow in executing as a result. If the files were very large (unlikely without hard disk support), this could become a problem.

■ HANDS-ON EVALUATION

Setting VisiFile up was a real disappointment. There are 3 diskettes supplied, and all are copy protected. Although there might be room for the files on one double-sided diskette, we will never know. There were also no instructions for the installation of the package on hard disk.

Once the installation problems were over (we gave up trying to get a logical configuration and hoped we would not get caught in disk swap problems), we found the package relatively easy to use and generally applicable to our business problems. Users liked the menu structure and the ease of building simple reports, but did not like the fact that there is little flexibility to go beyond the basics.

□ User Interface

Menus: The VisiFile program is entirely menu-driven. All functions are accessed through menus, including the screen format definition and report definition functions. Menus are nested two deep.

Control characters: None.

Function/special keys: The cursor control keys, DEL, INS, page keys, and home key are used as expected by their labels. Function keys are used to duplicate some of these functions, and also to operate special functions such as lock mode and repeat mode for data entry purposes.

Command language: None.

Positive feedback: Feedback is provided in the form of status information displayed on the bottom of the screen. Confirmation is required for commands that may destroy data; these are generally full screen and include reverse video portions for greater emphasis.

Status display: Status information is displayed in two places on the screen during normal operation. At the top of the screen is a two line display that indicates the current menu, date, and time. On the next line the current database file is indicated. At the bottom of the screen another two line display indicates menu options available, function keys that are used from this menu, and other information such as the action currently being performed or messages concerning potential effects of the command.

Help facilities: A help display is available from the main menu only. This display lists the uses of special keys such as function keys.

□ Environment

VisiFile's MINIMUM environmental requirements are about average. A minimum 64K bytes of RAM is required, as are 2 disk drives: VisiCorp recommends double-sided drives to maximize data file size. It is possible to maintain data files on a separate disk from the associated index, map, label, and report files, allowing maximum utilization of disk storage. Many popular parallel and serial printers are supported, although 128K bytes of RAM is required if a serial printer is to be used. Operation on a minimum system is restricted, however, and a practical configuration seems to be 128K bytes of RAM and dual double-sided floppy disks.

Operation from a hard disk is not supported, and because of copy protection the program files are expected in the "A" drive. The number of files that may be maintained per disk is a function of processor memory: for systems with less than 128K bytes of RAM only 9 files may be maintained, while systems with 128K bytes or more may have 18.

□ Documentation

The documentation provided in this package consists of a reference manual and pocket guide. The reference manual has 1 introductory chapter dealing with startup and simple display operations; the rest of the book is divided into chapters dealing with the various functions such as data file definition, file maintenance, etc. The entire manual is written in a tutorial style, but no real tutorial or sample program is provided. A sample data file does exist and is referenced in the first section dealing with data entry, but this is of little value in the later sections. The tutorial format hinders functional reference during use; virtually every reference had to be done through the index.

On the plus side, a good error message list is provided in the appendix, and this includes suggested remedies. Also included in the appendix is a section detailing the structures of the data file, disk index file, and data dictionary file (characteristics file) created by VisiFile. An index is also provided.

Most of the users found the documentation unsatisfying, particularly those who used the package in spurts and needed a quick reference now and then.

□ Functionality

Our use of the package was generally successful; the basic business applications such as customer lists, competitive product files, magazine key article files, and so forth were all carried out with no difficulty. Data record definition is done on a simple to use definition menu, and no one seemed to have any difficulty with this procedure. It is possible to define custom entry forms with VisiFile, and the secretaries were soon creating screens to match existing forms and procedures. VisiFile allows the custom forms to be printed, a fact which can make the collection and entry of the data much easier. Another nice customizing feature which is particularly applicable to employment records and the like: the entire file, or fields within a record, may be password protected.

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On systems with larger memory configurations each record may consist of up to 104 data fields, for a total of 2K bytes of data per record. Smaller configurations are limited to 40 fields and 1K bytes of data. In either case the maximum alphanumeric field size is 255 characters, numerics can be up to 16 digits. Another memory-related limitation is that the number of files that may be maintained per disk is a function of processor memory: for systems with less than 128K bytes of RAM only 9 files may be maintained, while systems with 128K bytes or more may have 18. This may be overcome, of course, by maintaining files on separate disks, a practice which we followed for operational reasons; each keyer had a set of disks containing the files they were expected to use and update. Our primary system had only 64K bytes of RAM because a memory upgrade had not yet arrived, and the limitation to 40 fields was very difficult to live with. We had a large number of customer demographics which we wanted maintained and selected on, and the 40 limit arrived about half-way through them. Fortunately, our memory upgrade arrived in the middle of the setup. With 256K bytes of RAM the limitations of the package in field number and size were not significant.

Data types other than straight numeric and alphanumeric are supported by VisiFile. Fields may be specified in "dollars and cents" format, in which values are assumed dollars unless a decimal is added, and an mm-dd-yy date format in which the data must be entered along with the delimiters. An "auto-stamp" date field may also be defined, with the date taken from the operating system. Fields may be defined as permanent. When combined with the auto-stamp date feature, this provides a record creation date. Since we had a program which requested and validated the operating system date on system start-up, the use of the system date gave a higher level of quality for current date than any specially keyed data, a vital factor when the entry date of a record is to be used to trigger follow-up reports.

VisiFile offers a variety of record selection options for the purposes of file maintenance, copying, and printing. These options include character string search and field value comparisons such as greater than, equal or greater than, etc. Range selection is also possible: i.e. all records with ZIP codes between 01000 and 10000 may be selected. An interesting additional selection feature is VisiFile's "sounds like" function. With this, a field may be used for selection even if the exact spelling and capitalization is unknown. This feature can encourage people to get sloppy with record-keeping and even to type before thinking, however. One operator scanned a file 3 times looking for a name which was contained on the second page of the source document. We had to do a little custom training on this.

A feature that met with universal approval was the ability to logically connect selection criteria using "and" and "or." Creating a customer list for a special sales campaign could be done simply by selecting records on the basis of customer interests and region, then sending them to the printer. We also found that the creation date gave us a way of preventing a premature follow-up. You normally do not hit a client with follow-up sales effort 2 days after they place their first order!

The record selection capabilities of VisiFile proved sufficient for almost every need.

The sorting of data files is another function that VisiFile handles with competence. Files are sorted in ascending or descending order according to a record key hierarchy defined in an index file; up to 10 key fields may be defined. A single data file may be "sorted" numerous different ways simply by defining multiple index files. Only one copy of the data file is maintained, thus optimizing disk utilization. This feature was absolutely essential in our applications; we found that almost every type of report or document had to be sorted in some sequence for proper use. Mass mailings were the best example; we could meet presorted first-class restrictions using a ZIP code sort.

The record deletion facility in VisiFile contains a safety valve. Data file records are not actually deleted from the file, they are just inactive. By itself this might be something of a mixed blessing, since a disk could become quite full of a file containing mostly inactive records. VisiFile circumvents that difficulty by endowing its copy utilities with the capacity to copy only active records. The safety valve is provided by the capability to view inactive records, and to restore them to active status. File deletion also provides protection in the form of a full-screen warning complete with reverse video and exclamation marks. If a file has a high rate of deletions and is not copied regularly, the inactive records eat up so much space that the disk fills. We set up a set of IBM DOS batch files to make a regular backup of the main files and at the same time copy back to eliminate the inactive records.

The formatting of reports is menu-driven rather than programmatic, making the package easy to use but limiting its flexibility. The generation of reports containing numeric data is enhanced by automatic totalling, and a subtotal on break option. A sales report printed in salesperson order can be generated by sorting the data file by salesperson, and creating a break line when the salesperson field changes. The name and subtotal can be included on the break line.

The report format available with the VisiFile supports the definition of 3 title lines and 2 footing lines. Optional automatic date stamping and page numbering can be included. Field names may be printed as column headings, although on multiline reports the resulting multiline column header looked a little busy, particularly since the field names were truncated to fit the column size. One experiment with a simple inventory file resulted in a rather cryptic looking 1-character column headings, and even our most creative analysts were unable to make 1-character headings meaningful.

Special report formats are available to enable the generation of mailing labels, directories, and lists. Reports may be displayed to the monitor as well as the printer, allowing use in a semi-interactive mode. The label program is sophisticated enough to print labels, but not form letters.

For the most part, then, VisiFile provides the functions required by a package of this type. A few applications needed a little more power, but the technical specialists felt

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that these were candidates for data center programming or at least some form of central management control.

☐ Ease of Use

The creation of data files, index files, and reports is very easy with VisiFile thanks to the menu-driven format. The interactive approach utilized here is very convenient for data record definition and record selection. Some testers found it almost unnecessary to refer to the reference manual. This approach does limit the options available during report generation, though, and many felt that more flexibility in that area would be a plus. Although a help option is available from the main menu, few referenced it and those that did found it to be of limited value.

The function keys and cursor control keys are used at various points for editing and command entry. The meaning of the function keys changes from one menu to another, causing some confusion among the less experienced members of our staff. This confusion was enhanced by the lack of any function-key template.

Another minor irritant is the number of disk changes required during the generation of a new database and related files. While this may be unavoidable on systems equipped only with floppy disks, the lack of hard disk support is certainly an unnecessary handicap. We calculated that most of our swapping could have been eliminated if we had been able to copy the program to double-sided diskettes.

One area where everyone experienced problems was in the modification of existing alphanumeric fields. No one could get the edit function to perform as it was described in the manual, and the alteration of an alphanumeric was possible only by replacing the entire value.

☐ Support

As with other VisiCorp products, users who have returned their warranty cards are eligible to use the customer support hot-line, receive credits toward the purchase of new versions of the program, have defective disks replaced, or purchase a backup copy.

The primary support point for VisiFile, according to the documentation included with the package, is the local dealer. The value of dealer support depends on the degree to which the dealer has worked with the package; database systems seem to be one of the areas where the dealer who says that you cannot live without one manages to do so himself. Calls to the VisiCorp customer support service in San Jose have produced much better results. This number is not an 800 number, however, and the office is only open during normal business hours, Pacific standard time.

☐ System Interface

The file formats used by the VisiFile for the disk index file, the data dictionary file (or data description file), and the database file itself are all provided in the reference manual. Some information is provided on the map and index file formats, but VisiCorp recommends that these files be created and maintained with VisiFile.

VisiFile, like other VisiCorp products, supports the DIF file

structure. Utilities are provided for converting database information into a DIF format file, and for converting DIF input into a database file. Information and instructions are provided on interfacing VisiFile to two other VisiCorp products, VisiCalc and VisiTrend, and some other tips are provided on interfacing the program via the DIF file. No information is provided on the DIF file structure itself.

☐ Vendor Experience

VisiCorp is an experienced marketer of software products to the microcomputer business user, but much of that experience is gained from the marketing of VisiCalc, a product actually developed by someone else. The support structure within VisiCorp, however, is suited for large users. Phone calls to the central hot-line, even without prior attempts to call the dealer, are cheerfully answered.

■ PRODUCT OVERVIEW

☐ Terms & Support

Terms ● VisiFile is available form VisiCorp, through retail computer outlets and software dealers, and from mail order firms; both U.S. and international distribution are supported; the product is distributed through IBM's catalog sales effort.

Support ● primary support through local dealer, additional support through VisiCorp customer support hot-line, San Jose, CA, during normal business hours, Pacific standard time.

☐ Component Summary

VisiFile consists of 60 files supplied on 3 single-sided 5.25-inch diskettes. The files are modules written in BASIC and have the extension .BAS.

VisiFile:

	$300 lcns

☐ Computers & Operating Systems Supported

VisiFile is supported on the IBM PC or PC/XT personal computers with PC/DOS 1.1 or 2.0.

☐ Minimum Operating Requirements

Requires a minimum of 64K bytes of RAM and 2 floppy disk drives (double-sided recommended). Additional memory over 128K bytes allows larger records and more and larger data fields. Systems with less than 128K bytes of RAM cannot be configured for serial interface printers. Hard disk drives are not supported.

☐ Features

Record Size ● systems equipped with less than 128K bytes of RAM are restricted to 40 fields, or 1000 characters, per record; systems equipped with more than 128K bytes of memory are allowed a maximum of 2048 characters per record, or a total of 104 fields.

File Size ● file size is dependent on the storage device used to contain the file; systems equipped with the single-sided floppy disk drives are limited to files of 160,000 characters, while those equipped with double-sided drives may create files of up to 320,000 characters; in either case, the maximum number of records per file is 32,000; the following formula may be used to determine the exact number of records that may be contained in a file: maximum number of characters per disk / (record length + 1); this number, when rounded down to the nearest 10 records, is the number of records per file for a given record format; the maximum number of files per disk is limited by available memory; systems equipped with less than 128K bytes are limited to a maximum of nine files, while systems equipped with more memory are permitted up to 18 files.

LCNS: license fee.

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Field Size ● field size limitations are the same for all system configurations; maximum number of characters per field is 255; maximum number of digits per numeric field is 16; the length of a field name may not exceed 15 characters.

Key Field Limitations ● maximum number of keys per index file is ten; the maximum number of index files permitted per database file is limited by available memory: systems with less than 128K bytes are limited to nine indexes, while systems equipped with more memory are permitted 18; the maximum number of characters per key field is 98, but the total number of characters in all key fields cannot exceed 250 per index.

Screen Format Definition ● custom screen formats are created using the map option menu; full position control is available, and a default map is provided as a part of the definition process; exact map specifications are memory size dependent; with 128K bytes of RAM available, up to eighteen custom maps may be created per database file; each map may be up to 20 pages in length, and contain up to 80 fields, with 20 fields per page; systems with less memory available are limited to a maximum of nine maps per database file; a maximum of 30 fields may be specified in each map, with up to 10 fields per page and a maximum of 10 pages.

Entry Edit Capabilities ● fields may be specified as alphanumeric text, numeric values, dollars and cents values, or dates; no edit capability is provided; fields may be protected or hidden.

Report Format Definition ● report formats are defined from a report menu; three title and two footing lines may be included in a report; field names and page numbers are optionally printed; break fields may be specified, and printed in all occurrences or only when value changes; totals and subtotals may be included in the report, or the report may consist of only totals and subtotals; printing can be in file or index order, and the report can optionally contain deleted records.

Sort/Merge Capabilities ● records are maintained in entry order; the index capability allows files to be sorted according to a hierarchy of up to ten key fields; a file can be copied in the order specified by an index file; merging files requires the creation of a DIF format file as an intermediate step.

Query/Selection Capabilities ● the record selection capability operates for the maintain, copy, and print functions of VisiFile; records may be selected on the basis of one or more fields meeting a specified selection criteria, up to ten fields may be specified; selection criteria include the value comparisons equal, not equal, greater than, etc, also string comparisons, range comparisons, and a "sounds-like" function; the logical operators AND and OR are used to connect the selection criteria.

Programming & Batch Processing Capabilities ● no true programming or batch processing capability exists.

● END

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Special Purpose Communication Package

■ PROFILE

Function ● VisiLink is an online information ordering system for the electronic transfer of business information from the Data Resources, Inc data bank.

Computers/Operating Systems Supported ● IBM Personal Computer, PC/XT, or compatible under DOS 1.0, DOS 1.1, or DOS 2.0 operating systems.

Configuration ● requires a minimum of 192K bytes of memory and two floppy disk drives, or a PC/XT with one floppy drive and a hard disk; also required are an auto-dial modem connected to a single-user phone line, an asynchronous communications card, DOS version 1.1 or 2.0, and a display monitor ● VisiCorp's VisiCalc or VisiTrend/Plot software is required to process the data sheets received.

Current Version/Version Reviewed ● Version 1.0 for the IBM and Apple/Version 1.0 on an IBM PC.

First Delivery ● 1982.

Number of Installations ● information not available.

Comparable Products ● no major products provide exact functions; Hayes software provides access to the Source and other national databases.

Optional Associated Software ● VisiCorp's VisiCalc, VisiTrend/Plot (at least one required for processing data sheets).

Price ● $250 retail price.

Vendor ● VisiCorp; 2895 Zanker Road, San Jose, CA 95134 ● 408-946-9000.

Canada ● Distributor: Citation Software; 1901 Logan Avenue, Winnipeg, Manitoba R2R 0H6 ● 204-632-0559.

■ ANALYSIS

VisiLink is a special-purpose communications package that provides the personal computer user access to the world's largest private collection of computer-accessible information. In conjunction with Data Resources, Inc (DRI), VisiLink allows the user to order specialized DataKits, templates providing a wide variety of detailed business information, and worksheets for the production of forecasts. Data is transmitted in the form of VisiCalc worksheets that may then be used either as is, or customized to the user's particular needs.

The DataKits catalog includes information classified under four major headings: business analysis, investment analy-

PRODUCT QUALITY RATINGS*

	1	2	3	4	5	6	7	8	9	10
ENVIRONMENT										
DOCUMENTATION										
FUNCTIONALITY										
EASE OF USE										
SUPPORT										
SYSTEM INTERFACE										
EXPERIENCE OF VENDOR										

*For an explanation of rating criteria, please refer to the Communication Features section in the Software Evaluations (805) report.

sis, economic analysis, and administrative information. The investment information includes access to Standard & Poor's Compustat Financial Data, while the economic analysis covers regional, national, and international information.

The VisiLink/Data Resources, Inc combination allows easy and rapid access to the vast amount of business, financial, and economic information needed for proper business planning. All processing is done electronically; no charges are made for catalogs, order forms, or computer time. The data ordered is delivered within minutes, and all billing taken care of automatically. It is a valuable tool for the corporate user that needs timely access to reliable and up-to-date business information.

□ Strengths

The major strength of VisiLink is the sheer volume of business data that is placed within the user's reach and its immediate availability. The latest DataKits bulletin contains 120 pages of listings of data sets that may be ordered, plus a 40 page S&P Compustat supplement. The entire collection of information is maintained online by Data Resources' mainframe computers, and is instantly accessible via electronic ordering and delivery with the use of VisiLink.

The delivery of information in VisiCalc worksheet format allows the user to begin using the information immediately. The worksheets may be used as is, or may be customized by the user for his own purposes. Some worksheets contain formula sections in which the user may enter data, and have it compared with the DRI-supplied data for such purposes as determining market share or relative cost. Worksheets may be converted by VisiCalc into DIF format, allowing further processing by other VisiSeries products.

□ Limitations

The only person that can measure the real value of VisiLink is the end user, who must determine the actual appropriate-

PURCHASE PRICE RANGE Software Price Range [   ]

VisiLink $250
[=====|=====] $50 to $350

$200 $400 $600 $800 $1,000

VISICORP VISILINK PRICING ● open bar shows the typical range of prices for **SPECIAL PURPOSE COMMUNICATIONS** software used in a corporate environment ● the vertical line within the bar graph indicates the price of **VISILINK,** the evaluated product, relative to the price range of similar products.

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ness of the information contained in the DRI database to his business environment.

The VisiLink manual contains detailed instructions for the reconstruction of damaged Utility disks and the correction of damaged catalogs. It is a little unnerving to realize that this damaging of utility and catalog files is a common enough occurrence to warrant its own section of the manual, but the ease with which a communications line might be lost in the middle of a transaction makes the instruction necessary. The files that might be lost are easily replaced, and the instructions for doing so are complete.
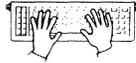
■ HANDS-ON EVALUATION

VisiLink is provided on 4 single-sided diskettes, 2 Program Disks, a Utility disk, and a Sample Data disk. The Getting Started manual includes detailed instructions on installation, with a separate section for diskette, and a hard disk systems. Control files are provided for installation on a hard disk, requiring the user only to create a separate subdirectory, load the diskettes, one at a time, and type install c:. Diskette installation consists of backing up the Utility disk and making Program Disk 1 bootable.

The beginning instruction leads the user through the proper setting of the modem switches for the particular modem being used, and a series of local and remote tests that may be performed to insure that the setup is correct. The local test did not seem to function on our system, or at least did not complete before we got bored, but all remaining operations worked as expected.

The QuickStart section is a very useful procedure that leads the user right up to the point of placing some typical orders, then allows him to back out without incurring even a phone call charge. All the demonstration files that the user is allegedly ordering are provided on the Sample Data disk. The menus used by VisiLink are simple, uncluttered, and easy to understand. The selection process of options desired or data sets to be ordered is very easy. The user simply highlights the line in question and presses the space bar. An asterisk appears on the left, marking the item. All items desired are marked in this manner, and a selection may be deselected by repeating the process.

Some of the data sets provided contain sections where all the formulas necessary for comparing user-supplied data against the DRI data are provided. Entries where the user should place his data are clearly marked *user*.

□ User Interface

The VisiLink user interface is a totally menu-driven system that uses a one-line display at the bottom of the screen to indicate the commands or options available at a given moment. Selection is accomplished by highlighting the command desired, or by a shortcut process. Help information is always available.

Menus: All program operations are performed through a set of simple, easy-to-understand menu screens. Command lists appear at the bottom of the screen, where the user highlights the command desired through the use of the

cursor control keys, and hits RETURN to perform the function. The highlighting and RETURN mechanism may be shortcut by simply typing the first letter of the desired command, whereupon it is immediately carried out.

Control Characters: There is no use of control characters within VisiLink.

Function/Special Keys: The function keypad is not used by VisiLink. The cursor control is used for selecting commands and maneuvering around on a menu, either for field positioning in preparation of typing information, or to highlight an option desired and select it via the space bar. For multiple page displays, the PGUP (page up) and PGDN (page down) keys on the cursor control keypad is used. The ESC (escape) key is used for signalling completion of item selection from a menu.

Command Language: The program contains no command language features.

Positive Feedback: When items are being selected from a list, an asterisk appears to the left of all items selected. Reselecting an item with an asterisk causes the item to be removed from the selection list, and the asterisk disappears. After the selection process is complete, and the order is to be placed, all selected items are brought together on the screen to reconfirm that the selection process was performed correctly.

Status Display: The next-to-last line is used as a status display. It contains separately delineated fields indicating the current state of the communications line, whether the end-of-form has been reached, and user messages.

Help Facilities: 4 different Help pages are always available to the user. The "?" key can be invoked at any time to bring up the general VisiLink help page. Other pages may be selected at that time, and contain information on Keys, Menus and the Display itself.

□ Environment

The memory requirement of 192K bytes is a little stiffer than the typical IBM system configuration, but is not uncommon, especially in a business environment with an IBM PC/XT. The system will function well on a floppy system or a hard disk system, and separate, detailed instructions are provided for each type of system.

□ Documentation

The VisiLink documentation consists of these major parts: the Getting Started pamphlet, the QuickStart Course, the VisiLink Reference Manual, a pocket reference guide, a copy of the latest DataKits Bulletin and supplement, and a user support plan brochure.

The Getting Started pamphlet contains information on the exact computer requirements and setup needed to use VisiLink and the Data Resources database. Included are the exact switch settings for nine popular modems, instructions on installation of VisiLink, with separate instructions for floppy and hard disk systems, and instructions on establishing and testing your specific configuration.

The Quick Start pamphlet will lead the first-time user

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through all of the standard operating procedures, including the ordering of blank order forms, the completion of forms, and their transmission to DRI. In all cases, the user is lead up to the point of placing the order with DRI, then instructed on how to back out of the order without initiating communications. Each demonstration form or data file allegedly "ordered" in the exercise is supplied with the package.

The refence manual contains complete information on the entire program. Chapters included are all menu and help file information, instructions for use of the catalogs and order forms using the DataKits worksheets in VisiCalc, and separate chapters on file services and maintenance for floppy and hard disk systems.

The DataKits Bulletin is the major index to all of the information available from the DRI data banks. It is organized by category of information desired, with full-page examples of the type of worksheets and data that the user can expect to receive for any given report. Appendices provide tips on ordering worksheets, instructions for the analysis of worksheets using VisiCalc and VisiTrend/Plot, and a summary of VisiLink error messages and customer service information.

☐ Functionality

VisiLink contains all of the functions necessary for the configuration and installation of the communications capabilities allowing access to the DRI database. It contains detailed modem settings for a wide variety of commonly occurring modems, and a set of local and remote testing functions to insure proper setup.

All order processing is done electronically through the DRI system. Catalogs and blank order forms may be requested and filled out online. After completion of the order forms, the form is transmitted and processed, and the information requested returned over the communications link. Customer charges are entered automatically into the DRI system for later billing.

All data is delivered in VisiCalc worksheet format. The user may immediately begin analyzing and making use of the information received by leaving VisiLink and entering VisiCalc or VisiTrend/Plot. Depending on the type of worksheet ordered, there may be locations for the entry of user-supplied data for comparison against the DRI-supplied information. VisiCalc may be used to convert the worksheet into DIF format for usage by other VisiSeries products.

Several different types of worksheets are available. Historical and Monitor Reporters contain DRI-selected batches of historical data focusing on specific countries, industries, markets, market segments, or applications. Analyzers contain similar information, in addition to worksheet formulas that calculate the relationship of user-supplied data to the DRI-selected data. This can be used to measure such things as market share and relative cost position. Forecasters, like Historical Reporters, contains a time-series presentation of selected forecast data. Planners contain the forecast data of Forecasters, along with worksheet formulas like Analyzers for relating user-supplied data to the DRI-supplied information. Lastly, Retrievers are a special type of template that allow direct access to the various DRI data banks, where information may be extracted on an item-by-item basis.

☐ Ease of Use

The documentation provided with VisiLink is excellent. The separation of instructions for floppy disk and hard disk installation and usage eliminates many problems that occur when the user must tailor the instructions. The menu system is simple and straightforward, particularly the marking of multiple selections for ordering purposes. Experienced users of VisiCalc will be able to immediately begin processing and analysis of the information provided by a DRI worksheet.

☐ Support

Both technical and customer support are available, but only to users that have properly filled in and returned the warranty registration card. If the staff at the point of purchase cannot assist with problems, clarifications, or disk replacement, it is advised to send in the registration card as soon as possible after inspecting the package for damage.

Registered purchasers have use of the VisiCorp Hot-Line Phone Number for service and technical assistance. They are also eligible for credit toward the purchases of new versions and free defective disk replacement for the first 90 days, and may order backup disks (though special backup disks are not required for VisiLink).

☐ System Interface

VisiLink worksheets are delivered as VisiCalc files, allowing instant access and usage by VisiCalc or VisiTrend/Plot for the analysis of the data retrieved. The VisiCalc templates may be customized by the user for specific purposes after retrieval. VisiCalc may then be used to create DIF files from the worksheets, allowing the information to be processed by other VisiSeries programs, or any program capable of processing DIF files.

☐ Vendor Experience

VisiCorp is a pioneer of microcomputer application software, having introduced the extremely popular VisiCalc in the late 1970s. That one program has been credited with convincing the public that there was a place for personal computers. The company has a long-standing reputation of standing behind the products it distributes. Their next step may be the installation of a toll-free 800 hot-line number.

■ PRODUCT OVERVIEW

☐ Terms & Support

Terms ● VisiLink is available for purchase only from the publishers, and from computer dealers, software dealers, distributors, and discount houses in the U.S. and abroad ● quantity discounts are available for volume corporate purchasers.

Support ● technical support and customer support is only made available to those users who have filled in and returned their warranty registration cards; product upgrades are made available to registered purchasers at an unspecified discount; free replacement of defective disks is provided for the first 90 days, after which the charge is a nominal $20; backup disks are also available to registered purchasers for $20 each ● a technical support hot-line is provided, but no toll-free 800 number is available; the hot-line number is 408-942-6000, available between 8:00 AM and 5:00

VisiCorp VisiLink
Special Purpose Communication Package

PM (Pacific Time); customer support is also provided through the main corporate number, 408-946-9000, through the mail, or via telex #172159; customer service is also available from DRI at 617-863-5100 between 9:00 AM and 5:00 PM Eastern Time.

☐ Component Summary

VisiLink is provided on 4 single-sided diskettes. PROGRAM DISK 1 contains primary VisiLink executables and configuration information. PROGRAM DISK 2 contains additional VisiLink overlays for order processing and configuration testing. UTILITY DISK contains current catalogs and blank order forms. Completed order forms will also be stored here. SAMPLE DATA DISK contains example data files that could have been ordered via VisiLink, used in familiarizing oneself with the system.

VisiLink:

$250 lcns

☐ Computers & Operating Systems Supported

VisiLink runs on the IBM Personal Computer, PC/XT, or compatible under DOS 1.1 or DOS 2.0 operating systems.

☐ Minimum Operating Requirements

VisiLink requires a minimum of 192K bytes of memory and 2 diskette drives, or a PC/XT with a diskette drive and a hard disk. Also required are an auto-dial modem connected to a single-user phone line, an asynchronous communications card, DOS version 1.1 or 2.0, and a display monitor. VisiCorp's VisiCalc or VisiTrend/

LCNS: license fee.

Plot software is required to process the data sheets received.

☐ Features

VisiLink is a special-purpose communications package, providing an online information ordering system for the electronic transfer of business information from the Data Resources, Inc data bank. Some of its features are:

Menu-Driven User Interface ● VisiLink interface is an easy-to-use, totally menu-driven system that leads the user through the process of receiving order forms, completing them, and receiving the requested information.

Database Access ● provides access to data banks of Data Resources, Inc, the world's largest private collection of business, financial, and economic information.

All Electronic Ordering ● entire data acquisition process in online, from the delivery and completion of blank order forms, to the delivery of the information desired and the posting of charges to the user's account, with none of the typical ordering delays.

Low-Cost Transmission ● no charges are made for catalogs or order forms; the user pays only for actual data received and the cost of a local phone call.

VisiCalc Worksheets ● all information is transmitted on VisiCalc worksheets; worksheets may be immediately processed via VisiCalc, VisiTrend/Plot, or other VisiSeries products; user information may be entered and compared to the data delivered, or the worksheet itself customized to the user's needs.

● END

VisiCorp VisiSchedule
Project Scheduling System

■ PROFILE

Function • automatic project scheduling and job costing tool.

Computers/Operating Systems Supported • IBM Personal Computer, PC/XT, or compatible under DOS 1.0, DOS 1.1, or DOS 2.0 operating systems; also available for the Apple III.

Configuration • requires a minimum of 64K bytes of memory and 2 floppy disk drives; disks must be formatted with DOS 1.0, DOS 1.1 or with /8 option under DOS 2.0; optional printer supported if available; hard disk support is not provided.

Current Version/Version Reviewed • Version 1.1/Version 1.1 on an IBM PC was reviewed.

First Delivery • 1982.

Number of Installations • information not available.

Comparable Products • Peachtree's Project Management System; Digital Marketing's Milestone; Energy-Tek's Quik Project Control System.

Optional Associated Software • VisiCorp's VisiCalc.

Price • $300 retail price.

Vendor • VisiCorp; 2895 Zanker Road, San Jose, CA. 95134 • 408-946-9000.

Canada • Distributor: Citation Software; 1901 Logan Avenue, Winnipeg, Manitoba R2R OH6 • 204-632-0559.

■ ANALYSIS

VisiSchedule is an easy-to-use project scheduling and job costing package. It allows the user to break complex projects into a series of jobs, indicate their interrelationships and skill requirements, and track, modify, update, and control the resulting job schedule.

The package will execute in 64K bytes of memory, but performance will be severely affected by myriad disk accesses. Once given a more generous environment, the package executes quite well. The most serious drawbacks are the peculiar disk formats used and the slowness with which menu selections are made.

VisiSchedule is a powerful tool. It provides flexible schedule definition and manipulation capabilities, and presents a clear graphical representation of a project schedule. It is a capable package, and would come well recommended if it were not for the peripheral issues of disk format and lack of menu selection speed.

PURCHASE PRICE RANGE

Software Price Range [   ]

VisiSchedule $300

[========================]$50 to $350

| $100 | $200 | $300 | $400 | $500 |
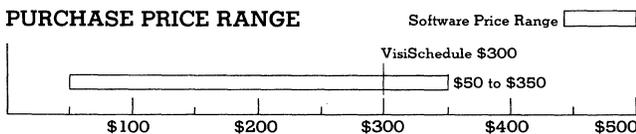
VISICORP VISISCHEDULE PRICING • open bar shows the typical range of prices for **PROJECT SCHEDULING** software used in a corporate environment • the vertical line within the bar graph indicates the price of **VISISCHEDULE**, the evaluated product, relative to the price range of similar products.

PRODUCT QUALITY RATINGS*

	1	2	3	4	5	6	7	8	9	10
ENVIRONMENT										
DOCUMENTATION										
FUNCTIONALITY										
EASE OF USE										
SUPPORT										
SYSTEM INTERFACE										
EXPERIENCE OF VENDOR										

*For an explanation of rating criteria, please refer to the Spreadsheet Features section in the Software Evaluations (805) report.

☐ Strengths

The major strength of VisiSchedule is its clear and graphic representation of the project schedule, and the ease with which it can be changed. Once entered, one cannot lose track of interjob dependencies. The inevitable schedule slippages can be easily accounted for. The most useful aspect is the ability to make any change temporarily, examine its potential impact on the project, and just as easily remove it again. This provides a mechanism for looking at possible or anticipated problem areas, measuring the affect, and developing alternatives for dealing with those of severe magnitude. It is the "what-if" capability of project scheduling.

The skill leveling function that attempts to manipulate projects within their slack time in order to even out overall personnel requirements is an advanced function not found in many project scheduling packages. Though not of much use on smaller projects, it can prove valuable for larger projects involving many interrelated jobs and extensive personnel.

☐ Limitations

The major liabilities of VisiSchedule have little to do with its actual capabilities and functionality, and really harm an otherwise good package. Its ability to function in a 64K-byte system is useful, but the price that must be paid in terms of performance should be worth a warning to the user. 96K bytes or greater is recommended. A much smaller performance issue is the lethargic manner with which the commands or command options are highlighted when selecting a command. Though there are only 5 options displayed per line on the screen, the menu processor cannot handle 3 rapidly typed arrow keys without losing one. The other means of selecting options by typing their first character would be one way around the problem, and is used successfully in other programs. But the advantage of this alternative method is spoiled by the appearance of many options with the same beginning letter.

VisiCorp VisiSchedule
Project Scheduling System

The use by VisiSchedule of non-DOS disk formats for both program and data disks makes no sense whatsoever. Floppy disk maintenance, not a pleasant task to start with, is made almost impossible. Time is wasted transferring report files from "funny-format" to DOS format. Worse yet, if after much schedule modification, an attempt is made to save the new schedule to a full data disk, one is out of luck if another VisiSchedule-formatted disk is not available. All schedule data must be cleared from memory in order to format another "funny" disk. Kiss all that work good-bye.

The only actual functional shortcoming of the package is in the handling of skill levels. At the beginning of the project definition, the user is allowed to give useful names to each skill level. But in the remainder of the package, the user is not allowed to refer to those level names. If you want the photography for the advertising brochure done by a photographer, then you had better remember that that was skill level 4. One slip-up, and the copy boy ends up doing the major account marketing presentation.

■ HANDS-ON EVALUATION

VisiSchedule is provided on 2 single-sided floppy disks: a program disk and an examples disk. Examining the disks yields no useful information; neither disk contains a valid DOS directory. The formatting of the disks is totally controlled by VisiSchedule. While schemes such as this were mandatory back when floppy disks were interfaced to microprocessor systems by hobbyist engineers, it is inexcusable in the realm of personal computer operating systems available today.

As such, the program cannot be installed on a hard disk or copied to a double-sided disk to allow room for data files on the program disk. The program does not allow the user to specify the A: drive for data files. Backup copies of the program disk are available for an additional $20 fee.

The program takes over 40 seconds and a myriad of disk head movements to load, before it is ready to accept input. Once running, the program displays the available commands on 2 lines near the bottom of the screen. The highlighting of commands via the arrow cursor control keys turned out to be a very slow process. The program somehow disables the typeahead capability of the system, allowing only 2 keystrokes to be entered before the user is forced to wait for the program to catch up.

The first menu includes an entry for today's date, but it does not default to the date available from DOS. It is not capable of determining the amount of memory available on the system, and if the default number is changed, must go through its entire loading sequence again before being able to continue. The first time through the examples, the program was left at the 64K default. When the program performance proved to be miserable for even the smallest of schedules, due to continuous disk activity to and from the program disk, the memory size was increased to the full 256K of the machine. From that point on the program performed quite well.

Once all of these obstacles were overcome, the actual use of the package proceeded quite well. The menu selection mechanism lags quite a bit, but if one is not in a hurry, one

adjusts. The modifications of the project schedule graph were accomplished very rapidly, and provided clear indications of the projected affect of any given schedule change. The only disappointment during the actual use of the package's function capabilities was being continually forced to remember which skill levels had been assigned to what personnel types.

□ User Interface

The VisiSchedule user interface is a totally menu-driven system that uses a 2-line display at the bottom of the screen to indicate the commands or options available at a given moment. Selection is accomplished by highlighting the command desired, either by using the arrow keys on the cursor control keypad, the space bar, or by typing the first character of the command desired, and then hitting RETURN. As each option is highlighted, a brief half-line description of the function performed by that option is displayed. When user-keyed information is needed by the interface, the user is prompted for data entry either at the bottom of the screen, or on the menu portion itself.

Menus: All program operations are performed through a set of simple, easy-to-understand menu screens. Most screen displays show the current values for various parameters associated with the option being modified. After selection of the parameter to be modified and entry of the new value, the main screen display is changed to reflect the new values. Each menu has a QUIT option in the lower right corner that allows the return to the next higher menu. The manual contains a fold-out display of all menu relationships.

Control characters: There is no use of control characters within VisiSchedule, with the exception of the CTRL-ALT-DEL sequence used to boot the system upon starting and completing the program.

Function/special keys: The function keys can be used to select options available on the main menu as an alternative to highlighting the option and pressing RETURN. The cursor control keypad ofthe IBM PC is used to highlight the command option desired on the command menus. The PGUP (page up) and PGDN (page down) keys are used to move pages, one at a time, through a schedule.

Command language: The program contains no command language features.

Positive feedback: Each screen display is updated as parameter values are modified. No special feedback is given during long periods of disk activity.

Status display: The program contains no status display.

Help facilities: The program contains no formal Help facility. The menu format used is simplistic and straightforward, however, and includes a short, half-line description of the highlighted option.

□ Environment

The program is capable of executing on a system with 64K bytes of memory and 2 disk drives. On a minimum system, the number of jobs that can be defined per project is limited to 50. On a system with 96K bytes or more, the user may define up to 150 jobs per project.

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VisiCorp VisiSchedule
Project Scheduling System

Even though a project with up to 50 jobs may be created on a system with 64K bytes, most of the information is apparently stored on disk in a virtual-memory-like format. The disk activity involved in doing operations such as dependency highlighting or manpower totals was enormous.

☐ Documentation

The VisiSchedule documentation consists of a 3-part manual, a pocket reference card, and a user support plan brochure. The first section of the manual is a series of 5 lessons that demonstrate how to start the program, create a schedule, manipulate data files, review and update schedules, and prepare and print reports. The lessons contain many full-screen images of the program during execution. They also make use of several example data files contained on the examples disk to demonstate particular feature operations.

The second setion is a reference manual. The first chapter defines and displays all screen menus used by the system. This is followed by an alphabetic listing of all commands and command options. This section makes the locating of any single option easy, but it is not possible to read ahead a page and back a page to understand all of the options associated with a particular menu or command. Following the options chapter is a detailed description of the reports that may be generated. The 5 appendices at the end of the manual cover all system error messages, special key usages, printer support information, file transfer information (including complete DIF file format description), and a summary of useful facts about VisiSchedule limits and capabilities.

☐ Functionality

The first operation that must be performed is the definition of the overall project and its parameters. After naming the project, the user chooses the time scale to be used (either days or weeks), the starting date of the project, the cost units (in dollars, thousands of dollars or millions of dollars), and the expected holiday schedule for the duration of the project.

The next step is the definition of the workers needed for the project. VisiSchedule can keep track of 9 different skill levels or job classifications. Names may be assigned to the skill levels for easier reading of reports, but the names cannot be used by the user in identifying people in the job definition or other stages of the project scheduling. Each skill level is assigned an average salary to be used in the job costing.

The job definition phase is where the project is broken down into manageable tasks to be performed. For each job description the user defines the duration of the job, the pre-requisites that must be met before the job may be started, any direct costs associated with the job, and the number and skill levels of the personnel to be assigned to the job. Jobs may be added or inserted into the project in several different ways. The different methods of job insertion are provided to allow various assumptions on the job pre-requisites to be made automatically. One may always add a new job by specifying all of the information explicitly. Once the jobs are defined, they may be rearranged on the schedule chart, if desired, to reflect any particular feature.

There are also over a dozen ways of automatically sorting the job schedule: by scheduled start, by deadline, by department (using a tag added to the job name), etc.

The job schedule, based on the job pre-requisite definitions, is drawn automatically. The schedule chart uses different symbols to designate non-critical jobs, jobs on the critical path, slack time, completed and partially complete jobs, jobs with no pre-requisites or no successors, zero-length jobs (milestone events), and end of the project. It allows the marking of the beginning or the ending of any job as a milestone. The running personnel totals or personnel costs may be displayed at the bottom of the schedule graph.

Once entered, job information may be modified as the project progresses. Completion information is entered on a regular basis, and the project schedule graph modified accordingly. Job slippages can be easily specified, and the entire schedule adjusted to reflect the changes. The changes made to a schedule are temporary until the schedule is saved to disk. They may be easily undone, providing the ability to investigate the potential effect on the project schedule of various happenings.

One of the more interesting capabilities is the skill leveling option. The Level option adjusts the starting date of non-critical jobs within the slack time allowed to even out the job responsibilities in any single skill category. This will never alter the project time schedule, but in certain circumstances can have a dramatic effect on the number of people needed to accomplish the task.

Once a project is defined, it must be saved on a project data disk. Project disks must be specially formatted by Visi-Schedule before they can be used. The program cannot save files on standard DOS disks. When saving a schedule revision to disk, the old schedule is automatically made into a backup file, providing a free level of data integrity in case of mistakes or changes of mind. Additional options are provided to allow the creation of DIF files for use by VisiCalc. Only the project numbers, such as personnel totals and job costs, are written to the DIF file. Reports may also be written to disk, after which they may be copied to a regular DOS file for processing by other packages by the WriteDOS option.

Four separate reports may be generated from a project schedule. The Project Description Report contains all of the global project information, the complete summary of all skill levels defined, the number of each required and the total personnel costs, and a summary of the project schedule dates and total project cost. The Job Description Report provides detailed schedule information about each task defined for the project. The Tabular Job Report prints a table summary of particular user-selected information about each job. The Schedule Graph Report prints the complete project graph, including a legend of all symbols used within the graph.

☐ Ease of Use

Once the initial obstacles of long load delays and the default setting of the memory available are overcome, Visi-Schedule is simple and straightforward to use. Each menu is limited to a very specific function, and allows the user to cancel the operation and return to previously occurring menus. In menus that one must typically fill in several

VisiCorp VisiSchedule
Project Scheduling System

option values in succession, the system returns to the user in a way that the next option is highlighted.

The option selection mechanism would be much more pleasant to use if the cursor movements were done more efficiently, or if the menus option names had been selected so that there were no conflicts in the first character of the option names.

☐ Support

Both technical and customer support are available, but only to users that have properly filled in and returned the warranty registration card. If the staff at the point of purchase cannot assist with problems, clarifications, or disk replacement, it is advised to send in the registration card as soon as possible after inspecting the package for damage.

☐ System Interface

VisiSchedule is capable of saving data derived from its schedule processing in DIF file format, allowing the information to be transferred for use by VisiCalc or other DIF-handling programs. It also provides the capability of transforming report files saved to disk into DOS format. Due to the fact that it does its own disk handling instead of using the operating system, it cannot use disks formatted under DOS 2.0 using 9 sectors per track. Users with DOS 2.0 must format separate floppies with 8 sectors per track for use with VisiSchedule.

VisiSchedule contains no method of accepting information from sources other than the keyboard. All information must be entered via the keyboard for each project defined.

☐ Vendor Experience

VisiCorp is a pioneer of microcomputer applications software, having introduced the extremely popular VisiCalc in the late 1970's. That one program has been credited with convincing the public that there was a place for personal computers. The company has a long-standing reputation of standing behind the products it distributes. Their next step may be the installation of a toll free 800 hot-line number.

■ PRODUCT OVERVIEW

☐ Terms & Support

Terms ● VisiSchedule is available for purchase only from the publishers, from computer dealers, software dealers, distributors, and discount houses in the U.S. and abroad; quantity discounts are available for volume corporate purchasers.

Support ● technical support and customer support is only made available to those users who have filled in and returned their warranty registration cards; product upgrades are made available to registered purchasers at an unspecified discount; free replacement of defective disks is provided for the first 90 days, after which the charge is a nominal $20; backup disks are also available to registered purchasers for $20 each ● a technical support hot-line is provided, but no toll-free 800 number is available; the hot-line number is 408-842-6000, available between 8:00 AM and 5:00 PM (Pacific Coast Time); customer support is also provided through the main corporate number, 408-946-9000, through the mail, or via telex #172159.

LCNS: license fee.

☐ Component Summary

VisiSchedule is provided on 2 single-sided floppy disks; a program disk and an examples disk. Neither disk contains a valid DOS directory, and can only be viewed with VisiSchedule. The examples disk contains several small schedules used within the manual for demonstrating the program's capabilities.

VisiSchedule:

$300 lcns

☐ Computers & Operating Systems Supported

VisiSchedule runs on the IBM Personal Computer, PC/XT, or compatible under DOS 1.0, DOS 1.1, or DOS 2.0 operating systems. A version is also available for the Apple III.

☐ Minimum Operating Requirements

VisiSchedule for the IBM PC requires a minimum of 64K bytes of memory and 2 single-or double-sided disk drives. Disks must be formatted with DOS 1.0, DOS 1.1, or with the /8 option under DOS 2.0. Optional printer is supported if available.

☐ Features

VisiSchedule is an automatic project scheduling and job costing system. It allows the user to break complex projects into a series of jobs, indicate their interrelationships and skill requirements, and track, modify, update, and control the resulting job schedule. Features included are:

Large Project Capacity ● a single project may contain up to 50 separate jobs in a 64K system and 150 jobs on a 96K or greater system; up to 999 time units for a single job, and 9,999 time units for a project can be accommodated.

Flexible Parameter Specifications ● the units of measurement used in the various portions of the system can be established at project creation time; these include whether the time schedule should be measured in days or weeks, and whether the cost units are single, thousands, or millions of dollars.

Specification of Job Relationships ● multiple job pre-requisites and dependencies may be established; jobs may be added or inserted, inheriting dependencies based on the manner of insertion.

Multiple Skill Level Definition ● up to 9 separate skill levels may be defined, each with its own salary specifications.

Automatic Job Scheduling ● actual job scheduling is done automatically once all jobs and job dependencies are defined; up to 24 holidays may be specified and automatically accounted for; a complete schedule chart is drawn indicating job schedules, deadlines, slack time, holidays, and the critical path of the project.

Automatic Skill Leveling ● slack time can be manipulated automatically in order to even out the number of employees required in any skill level over the duration of the project.

Schedule Modification & Experimentation ● impacts of schedule modifications are instantly reflected on the schedule chart; the effect of slippages, dependency and personnel changes, or job redefinitions can be quickly determined.

Report Generation ● 4 reports can be generated: Project Description, Job Description, Tabular Job Report, and Schedule Graph; reports may be limited to a particular range of jobs, and/or a specific skill category.

☐ Other Facilities

Because of its non-standard disk format, VisiSchedule provides mechanisms for converting report files to standard DOS files for use by other packages. It also has the ability to produce DIF files of the project personnel and cost data for use in VisiCalc or other packages handling DIF files.

● END

VisiCorp VisiTrend/Plot
Business Graphics Package

■ PROFILE

Function ● business graphics package for production of line, bar, area, pie, XY, and High-Low charts from VisiCalc (and other VisiCorp programs), and from direct keyboard input via the Trend edit functions.

Computers/Operating Systems Supported ● IBM PC and PC/XT under DOS 1.0, 1.1, and 2.0, and most other compatibles; also available for CP/M systems.

Configuration ● minimum 128K bytes of RAM for IBM PC, greater memory does not increase capabilities; any video monitor compatible with the IBM PC, except the monochrome (IBM Display Model 5151; 1 or more diskette drives (2 recommended); 3 program disks, and at least 1 blank formatted disk.

Current Version/Version Reviewed ● Version 1.3 is the current and reviewed version; earliest version is 1.0.

First Delivery ● 1982.

Number of Installations ● unavailable.

Comparable Products ● Peachtree Software Business Graphics System; Boeing Computer Service Bits Business Graphics; Ferox Microsystems Graph Power; Business & Professional Graphics BPS Business Graphics.

Optional Associated Software ● VisiCalc; DeskTop Plan and most other VisiCorp programs; the only requirement is that they support DIF (Data Interchange Format) files.

Price ● $300 retail price.

**Vendor** ● VisiCorp; 2895 Zanker Road, San Jose, California ● 408-946-9000.

Canada ● Distributor: Citation Software; 1901 Logan Avenue, Winnipeg, MB R2R 0H6 ● 204-632-0559

■ ANALYSIS

VisiTrend/Plot is designed to turn a microcomputer into a data analysis and chart-plotting system. With this system, it is possible to enter and save business data, do complex forecasting and analysis, display charts of current status and goals, print charts on a variety of printers, and save both data and charts on disk for use by another program package. The VisiTrend/Plot program communicates with the VisiCalc program and other VisiCorp programs, and non-company programs that support DIF (Data Interchange Format) files.

VisiTrend/Plot consists of three sub-programs: one for file management and data editing (the main sub-program); one

PURCHASE PRICE RANGE

Software Price Range

VisTrend/Plot $300

$50 to $525

| $200 | $400 | $600 | $800 | $1,000 |
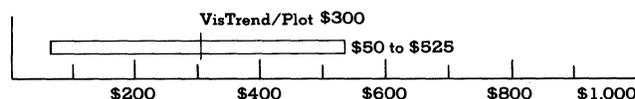
VISICORP VISITREND/PLOT PRICING ● open bar shows the typical range of prices for **BUSINESS GRAPHICS** software used in a corporate environment ● the vertical line within the bar graph indicates the price of **VISITREND/PLOT**, the evaluated product, relative to the price range of similar products.

PRODUCT QUALITY RATINGS*

	1	2	3	4	5	6	7	8	9	10
ENVIRONMENT										
DOCUMENTATION										
FUNCTIONALITY										
EASE OF USE										
SUPPORT										
SYSTEM INTERFACE										
EXPERIENCE OF VENDOR										

*For an explanation of rating criteria, please refer to the Graphics Features section in the Software Evaluations (805) report.

for statistical analysis, forecasting, regression, and time-series generation (the Trend sub-program); and one for creating charts of the series data managed and generated by the other sub-programs and for creating text-only foils (the Plot sub-program).

Users familiar with spreadsheets (such as VisiCalc), and graphics programs (such as VisiPlot or BPS Business Graphics) will find VisiTrend/Plot quite interesting and productive to use. The editing features accommodated by the Trend sub-program add to the functionality of the system, and provide the user a versatility within the scope of business forecasting often lacking in other programs or only available by tying two or more together. The tying of programs together obviously calls for inter-program communication, and this is not required with VisiTrend/Plot since the program has been designed with this in mind.

☐ Strengths

The primary advantage of using VisiTrend/Plot is the productiveness offered by the Trend sub-program. It develops data series used for analysis and forecasting techniques, including the derivation of moving averages, smoothing data, percent of change, leading, lagging, and cumulative total functions. Additionally, new series can be created by taking sums, ratios, logs, or other mathematical or logical transformations of the time series data. The list of business and statistical features goes on to include: linear multiple regressions, as well as the statistical measures of multiple regressions, T-statistics, R-Bar squared, the F-statistic, and the Durbin-Watson statistic; on the business side, trendline forecasting is included as well as the generation and calculation of min/max statistics, mean, variance, standard deviations, and correlation coefficients.

The Plot sub-program communicates data read from files (either generated by other programs or in the Trend sub-program) visually by generating "on-screen" charts such as line, bar, area, pie, high-low-close, and XY forms. A major

VisiCorp VisiTrend/Plot
Business Graphics Package

strength in this sub-program is the ability to combine line and bar charts in a single graph, provide comparative bar charts, and combined high-low-close and line charts.

VisiTrend/Plot supports a variety of printers, including the IBM 80 CPS Matrix (Epson MX-80), the Epson MX and FX-100 (as well as FX-80), the NEC 3530, 5530, and 7730 Spinwriters, and the Okidata Microline 83A. Non-graphics printers may be supported for the printing of tables but not charts.

☐ Limitations

VisiTrend/Plot data series is stored and used in its own format; DIF files can be translated into this format easily by the program, but no others. This may limit the ability of non-VisiCorp programs to run under the system if one does not also have VisiCalc (or an equivalent) that is capable of storing files in DIF format. It is possible to take files from non-VisiCorp programs that can be read in VisiCalc format, and convert them to DIF files through the use of a basic program such that VisiTrend/Plot can read them (thus eliminating the need for VisiCalc itself, provided the spreadsheet or other file generation package is similar). VisiCalc reads files no larger than 63 rows x 252 columns as standard, although larger files can be accommodated by reading files by column. The VisiTrend/Plot documentation indicates that VisiCalc cannot accept files that exceed more than 252 columns in any event, and while it does not specify this limitation on VisiTrend/Plot, it is likely the same.

Another limitation, at least in the IBM PC arena, is the lack of color, even though the package requires the presence of the IBM color/graphics monitor adapter. This presumably is caused by a desire to make the package easily usable on a variety of microcomputers, but is nonetheless a disappointment. Other packages which compete with Visi-Trend/Plot DO make use of color, and the enhancement to the screen presentation is a pure delight and productive aid for users.

■ HANDS-ON EVALUATION

VisiTrend/Plot is delivered on two program disks and an examples disk. The program disks are copy-protected, so the user cannot make copies of them unless advanced software capability is at hand. The company will provide new program disks to registered users returning the damaged program disk(s); however, more and more users are becoming annoyed at the "down-time" such policies present.

As with any program, the starting point is the documentation of the program. VisiCorp documentation is well laid out (more discussion below), providing an up-front table of contents for the entire document and a full list of charts and tables, as well as a comprehensive index. An explanation of the method to "boot" the disk shows that it is necessary to first load DOS onto the program disk (#1). Once completed, the user is instructed to place this disk into Drive A and to depress the familiar "Control-Alt-Delete" key sequence. It is also possible to start the program (at least from the hard disk) by simply entering "VT."

After loading VisiTrend/Plot, the startup display indicates

menu choices available along the top four lines of the screen. The dark and light lines shown are referred to as the status area, and provide operating information and the command menus, respectively. The version number, copywrite message, and user directions are displayed at the center of the screen. Two methods are given for selecting menu choices: moving the cursor to the choice and depressing the enter key, or typing the first two letters of the command. Audible feedback is provided to indicate an undesirable selection; get used to this negative feedback, because for the first hour or so of trying to load non-VisiCorp files, it is heard frequently. A word of caution—do not give up, it can be done, and it will be seen to be worthwhile.

Running the sample plot program gives the new VisiTrend/Plot user immediately gratification. The data files can be easily and quite rapidly loaded and then played with on screen. The use of these files to test printer compatibilities is recommended, and should the tests prove positive acceptance, the quality of the printed graphics charts are excellent. Playing with these samples is a part of the lessons provided in the documentation, and the new VisiTrend/Plot user will find it very rewarding to spend some time doing this. In a couple of hours, it will become clear which chart format best fit the type of data one wishes to present. It also will reduce any need to continually refer to the documentation, as in many programs.

When buying a package which integrates file editing and graphics, users immediately plunge into the graphics first, but there are always some more interested in the versatility of the mathematical and statistical capabilities of such a program. For those so inclined, the samples provide ample opportunity to play here as well. Beginning with lessons on maintaining, loading, displaying, (re-)formatting, saving, clearing, moving, and deleting data, and moving on to specific editing commands such as jump, insert, delete, specs formulation, data display formatting, printing, fill, and undo(ing), the new VisiTrend/Plot user then can play with analyzing functions, such as listing series, calculating series statistics, performing linear multiple regressions, and forecasting trends.

The using function provides for the smoothing of data, display of percent of change, difference, lag and lead, totaling, and moving of averages. All of these functions work without a hitch, but require some prior knowledge be used effectively early on. One can learn to use these functions, nevertheless by practicing with the samples and the information contained in the documentation for VisiTrend/Plot.

☐ User Interface

The VisiTrend/Plot user interface is a menu-driven system combined with a space-bar "toggling" to indicate which data items are to be "flagged" for inclusion in charts. As with the main menu found at program initialization, selection is made either by depression of the first two characters of the command choice or moving the cursor to the choice, followed by depression of the enter key.

Menus: The structure of the menus throughout all of the

VisiCorp VisiTrend/Plot
Business Graphics Package

sub-programs is hierarchical, usually running three to four levels deep. While the "Escape" key can be used within some menu choices, VisiTrend/Plot usually resorts to having a specific exit or quit command in the menu; this is inconsistently used in the program, and seems fairly unnecessary.

Control Characters: Used in the plot program to alter the cursor movement (Ctrl-Z), to change Font size (CTRL-F), to enable (or disable) bold-face (Ctrl-B), to turn inverse video on or off (Ctrl-R), and to clear the entire screen (Ctrl-Home).

Function/Special Keys: The cursor addressing keys are used as shown on the IBM keyboard, unless changed with a control sequence. Other keys such as backspace, enter, insert, delete, tab, and control are also used as is normal for the IBM PC or PC/XT. The "Escape" key is used in a variety of ways as explained in the sample exercises; as mentioned above, it is not always used to gracefully "exit" or "quit" a function. While the documentation provides an illustration of the keys used within the program, which includes a highlight of "Function Keys", there was no usage nor further explanation of them to be found.

Command Language: VisiTrend/Plot does not contain a command language, unless one considers the command selections (which contain a number of statistical formulae) to be such.

Positive Feedback: This is provided only in terms of completed charts matching those illustrated in the documentation; "Negative feedback" is presented in the form of audible beeps, etc.

Status Display: The first four lines of the top part of the screen are reserved for menu selection and messages.

Help Facilities: Conspicuously absent; HELP facilities would provide a much needed improvement to VisiTrend/Plot.

☐ Environment

VisiTrend/Plot requires a minimum 128K bytes of RAM under MS or PC-DOS. The program has also been designed for use under CP/M, and as such supports a wide variety of terminal types. Instructions are not provided for or mentioned with regard to the type of microcomputer being used since the documentation is written for each type of system the software is sold for. Several different types of printers are supported, including "non-graphics" printers used to print tables only.

VisiTrend/Plot requires a separate "data disk" be used (including hard disk), but a minimal amount of space is available to the program and example disks. It is wise to follow directions from the vendor on this point, since this will eliminate or at least reduce the possibility of "no memory space available".

☐ Documentation

The VisiTrend/Plot documentation is very well laid out. A complete table of contents is presented at the front of the manual, including an outline of the appendices. The manual also provides a usable glossary and a fairly detailed cross-referenced index. The flow of the documentation is interrupted from time to time by lengthy explanations of the usage of specific statistical and other tools. While this may seem appropriate, these dissertations interfere with the examples being presented. The screen pictorials in the manual are generally accurate portrayals of actual screen displays, but there are errors here and there. No problems were encountered, however, from these.

The information presented concerning the DIF format is quite clear yet interesting in that the "BASIC" routines offered to accomplish conversion are written in "Applesoft Basic".

☐ Functionality

VisiTrend/Plot provides a full array of graphing features such as line charts, bar charts, pie charts, area charts, XY charts, and high-low-close charts. Line charts support up to three lines each with different symbols and shading associated with them. Bar charts can be either full-bar or left-bar, the second type differing from the first only in that the width of the bar is smaller; it is also possible to specify a bar chart with an overlay chart of different data, especially useful in presentations on overhead transparencies. There is no limit to the number of overlays used, but only the first six series can be identified in the legends. Another type of bar chart included is the comparative-bar, in which the program is requested to ask for the left and right series separately; this is essentially a stacked-bar that has been "unstacked" and placed along side the first or left series. Stacked-bar charts are also included.

While it is not possible to show an exploded view of a pie chart, the menu options do allow selective shading to add emphasis to a particular segment. The documentation is ripe with suggestions on which type of chart to use for a variety of graphics representations. For instance, a linear regression may appear totally incomprehensible to some in a high-low-close chart, but perfectly clear in a line or bar chart. With area charts it is important to think about data representation first, since the order of data series selections can effect the visibility of certain areas. Should a particular data series be blacked out by the heavier shading of another, it is possible to simply reverse or otherwise re-order the data series selections.

VisiTrend/Plot's "Trend" subprogram begins with its own menu, which is accessed from the "main menu", that offers the choices of: Edit, Analyze, Display, Function, Xform, Clear, Plot, and Main (the exit within this menu display). Plot is the same as within the Plot subprogram; Clear simply wipes the data series from the screen and RAM; Display indicates the data series that are active in RAM; Analyze performs linear multiple regression and trendline forecasting, calculates common data series statistics such as minimum, maximum, mean, variance, standard deviation, and coefficient of correlation. Analyze also generates tabular output, and formats the displayed data. Function generates new series from existing ones, calculates moving averages, percent of change, and cumulative total. It also does exponential smoothing and can generate leading and lagging series. Xform provides for the transformation of a data series, allowing the creation of new series through mathematical and logical operations on existing series.

VisiCorp VisiTrend/Plot
Business Graphics Package

☐ Ease of Use

For one not familiar with statistical methods, time series forecasting, and the like, the Trend sub-program is not easy to use, but may offer the best method of getting the job done when required for the price. The Plot sub-program is quite easy to use, and easy to learn as well. Again, the lack of help facilities is a definite drawback to VisiTrend/Plot, and one should think that a future release of the product would rectify this.

With the explanations within the documentation, a new user, unfamiliar with the uses of the Trend sub-program, would find it possible to learn a great deal about statistical manipulation. If the use is to be for the graphing capabilities alone, one is better served purchasing VisiPlot or some comparable product.

☐ Support

Both technical and customer support are available, but only to users that have properly filled in and returned the warranty registration card. If the staff at the point of purchase cannot assist with problems, clarifications, or disk replacement, it is advised to send the card in as soon as possible after inspecting the package for damage.

☐ System Interface

VisiTrend/Plot can accept any data file appearing in the DIF format. VisiTrend/Plot data series can be stored in either the DIF format or in the VisiTrend/Plot format, which adds the file extension ".ser". This data file format is a sequential text file, where the fields are variable length and each is terminated with a linefeed. It is not necessary to convert from DIF to this format prior to usage of the data series within VisiTrend/Plot.

☐ Vendor Experience

VisiCorp is a pioneer of microcomputer applications software, having introduced the extremely popular VisiCalc in the late 1970s. That one program alone, even in its earlier, primitive versions, was credited with truly giving birth to the microcomputer industry for business usage. The company has a long-standing reputation of standing behind its products and those it distributes. Its next step may be to install an 800 number hot-line service.

■ PRODUCT OVERVIEW

☐ Terms & Support

Terms ● VisiTrend/Plot is available for purchase only from the publisher and from computer dealers, distributors, software dealers, and discount houses in the U.S. and abroad ● the current price from the publisher is $295.

Support ● technical support and customer support is only made available to those users who have filled in and returned their warranty registration cards ● for those who have, product upgrades are made available at an unspecified discount from the vendor's list price ● free replacement of defective disks is also provided for the first 90 days, after which the charge is a nominal $20; it is again required that a warranty card was returned to VisiCorp; it is not necessary to return the defective disk; backup

disks are also made (with the same warranty card requirements) for $20 each ● "hot-line" telephone technical support is also available without charge; however, no 800 number exists; the "hot-line" number is 408-942-6000, available between 8:00 A.M. and 5:00 P.M. (Pacific Coast Time) ● customer support can also be consulted through the main corporate number, 408-946-9000 or via mail or telex #172159.

☐ Component Summary

The software elements are located on 2 5.25-inch diskettes and one example diskette. 31 programs and files are included on the diskettes. These include a Manager, CDM System, Initiation and Installation programs, a printer driver, a configuration file, and sub-files for system operation.

VisiTrend/Plot:

$300 lcns

☐ Computers & Operating Systems Supported

VisiCorp supports the IBM PC and PC/XT, compatibles, Apple Computers, the Apple II, II+ and the Apple III, the Radio Shack TRS-80 models, and a host of others compatible with either Radio Shack or Apple. MS and PC-DOS 1.0, 1.1, and 2.0, and CP/M are supported.

☐ Minimum Operating Requirements

As mentioned, VisiTrend/Plot requires at least 128K bytes of RAM to operate. An increase in RAM does not improve the capabilities of the program. While a user with 256K RAM may experience faster file transfer, this is a result of the configuration of the computer system, not increased performance on the part of the software, according to the VisiCorp documentation.

☐ Features

VisiTrend Plot is a combined statistical and charting package that allows the use of both DIF files and keyboard data entry, subsequent data manipulation, and charting of the results.

Formats ● accepts VisiCalc and other files which have been converted to DIF (Data Interchange Format).

Data Sources ● keyboard entry via the Trend subprogram or by loading files from other devices.

Chart Types Supported ● line, bar, area, pie, and XY charts.

Color & Shading Selection ● no color is available; shading can be selected to provide greater emphasis on chart segments.

Graph Size & Position ● normal is 24 x 80 columns; supports rescaling and windowed charts.

Statistical Function Support ● Table listing, Series Calculation, Linear Multiple Regression, Trend Forecasting (with regression), Smoothing, Percent of Change, Difference, Lag, Lead, Series Totaling, Moving Average, Series Transformations, and Exponentials.

Axis Labeling ● automatic legends and axis from item selections and statistical routines.

Scaling & Image Size Control ● automatic rescaling at user prompt; image size can be controlled in printout only.

Window Capability ● allows two charts to appear on screen, such as for 1981 sales data and 1986 sales data, for comparison.

Data Manipulation ● accepts any data from DIF files or from keyboard with data arrayed in columnar format, sequential only.

Command Language ● none present, but trend and graphing routines depend upon command menu selections.

Print Facilities ● outputs to graphics printers: Epson, NEC, IBM, and Okidata; also in table format only to non-graphics printers—no driver is required.

Load/Save Facilities ● both capabilities present subject to limitation of file formats.

LCNS: license fee.

● END

VisiCorp VisiWord
Word Processing Package

■ PROFILE

Function ● word processing, report production, document development.

Computers/Operating Systems Supported ● IBM Personal Computers, PC/XT, Compaq Personal computer using MS-DOS, Columbia Personal computer using MS-DOS, other IBM-compatible systems; VisiCorp specifies the system as an IBM PC product.

Configuration ● 192K bytes of RAM, 1 double-sided diskette drive or 2 single-sided drives, hard disk also supported if available ● color graphics card and monochrome or color monitor, or IBM monochrome display required ● operating system support is PC-DOS 1.1 or 2.0, or the equivalent MS-DOS.

Current Version/Version Reviewed ● 1.2/Version 1.0 for the IBM PC.

First Delivery ● April 1983.

Number of Installations ● 15,000 as of June 1983.

Comparable Products ● MicroPro WordStar, Softword Systems Multimate.

Optional Associated Software ● optional spelling checker package is available for $225.

Price ● $375 retail price.

**Vendor** ● VisiCorp; 2895 Zanker Road, San Jose, CA 95134 ● 408-946-9000.

Canada ● Distributor: Citation Software; 1901 Logan Avenue, Winnipeg, MB R2R 0H6 ● 204-632-0559.

■ ANALYSIS

VisiWord is a visual-oriented, menu-driven word processor designed for use in general document and memo production. It retains the desirable command structure of the other VisiCorp products such as VisiCalc, and this structure makes the package easy to learn and use.
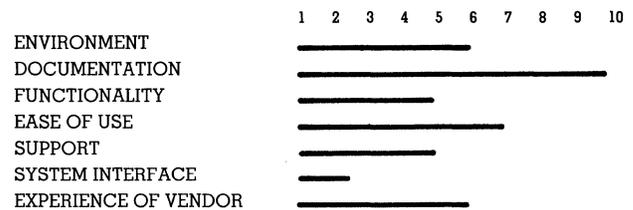
The document work area in VisiWord is the computer memory; disk storage is used only for archival storage and for saving work in process. This means that a given document is restricted in size by the available memory. A 192K-byte system with DOS 2.0 is limited to about 30 standard pages of text. Larger documents are created and maintained through an "append" facility.

VisiWord supports most popular printers, both parallel and serial, and provides an optional spelling dictionary. It is

PURCHASE PRICE RANGE

Software Price Range

VisiWord $375

$75 to $500

$200 $400 $600 $800 $1,000
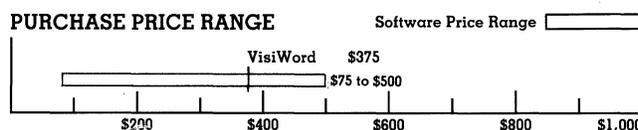
VISICORP VISIWORD PRICING ● open bar shows the typical range of prices for **WORD PROCESSING** software used in a corporate environment ● the vertical line within the bar graph indicates the price of **VisiWord**, the evaluated product, relative to the price range of similar products.

PRODUCT QUALITY RATINGS*

	1	2	3	4	5	6	7	8	9	10
ENVIRONMENT										
DOCUMENTATION										
FUNCTIONALITY										
EASE OF USE										
SUPPORT										
SYSTEM INTERFACE										
EXPERIENCE OF VENDOR										

*For an explanation of rating criteria, please refer to the Word Processor Features section in the Software Evaluations (805) report.

also compatible in data formats with other popular VisiCorp products, making it easy to integrate spreadsheets from VisiCalc into reports or to merge mailing lists maintained on VisiFile to generate mailing labels or form letters.

The ease of use of VisiCorp makes it a candidate for both secretarial and direct use by professional or technical personnel, but it lacks some of the features required to maintain formal reports and to make revisions to large documents. VisiWord's primary appeal is as an "occasional user's" word processor. In a document-production environment it is frustrating and lacks key features. At least in its present form, VisiWord is more suitable for a small business environment than for a large corporation.

☐ Strengths

VisiWord is easy to use. The menu format is quickly deciphered and the program may almost be run without reference to the manual, even by beginners. The documentation is also good; arranged by user function with examples and illustrations from the screen. A hierarchical help structure provides assistance at any point in the operation of the word processor.

Standard form document entry and filling of forms is very easy with VisiWord, and the dual-window capability makes cut-and-paste changes very easy to carry out. Large documents may be created by combining smaller ones at print time—a "chapter" organization of the document is helpful for this capability to reach full potential.

The page display is identical to the printed form on the monochrome system, and matches except for the underscore when a color graphics card is used.

☐ Limitations

On entry of new text, VisiWord has a slight tendency to lag behind the typist. When revisions are being entered into the middle of a document, this lag becomes so noticeable that it affects productivity. The package also lacks

VisiCorp VisiWord
Word Processing Package

footnote capabilities. Some functions, such as format changes, can only be entered at a paragraph break and this often confused the operators. Forced page breaks operated so strangely we were inclined to think it was a bug in the software, which in fact it proved to be.

The performance of VisiWord in revision mode is totally unacceptable for even the average professional, and almost painful for a good typist. In response to an inquiry, VisiCorp said that a future release of the product, probably version 1.2, would correct the problem and make it possible to insert text without lagging behind the keyer at speeds of 60 words per minute. Even with this problem corrected, the document size limitations may limit the value of the product in a corporate environment.

■ HANDS-ON EVALUATION

Right out of the box, VisiWord creates some interesting problems. First, it cannot be copied without the standard DOS utilities. If you want to set up a copy of the word processor with private formats and other features for each typist who might use the system, you are quickly foiled. Furthermore, the disk supplied is a single-sided diskette and has no room to install DOS 2.0 or even to include a copy of COMMAND.COM. Thus, at the end of each session, the operator must reinsert the DOS diskette just to get the system prompt again. Since you cannot copy the program to another diskette, you must boot DOS from another disk. Attempting to operate the system with the VisiWord disk in the B: drive and a work disk (with COMMAND.COM) in A:, we discovered that the system defaults to get the B: disk for document and spooler path assignment. Once that was corrected we were able to use VisiWord without undue disk swapping. However it is loaded, VisiWord makes some frightening noises on the disk as it loads; apparently the copy protection scheme in operation.

Installing VisiWord on a hard disk is supported, and an INSTALL program is supplied to do this. Use of the hard disk provides relief from some of the disk handling problems, but systems with dual floppy disks were able to run without problems. Single-drive use is possible; you are prompted to change diskettes when you save or load a document. Don't use it—people tended to try to write on the wrong disk if the changes came too often.

Professionals with little experience in word processing tended to like the easy menu structure and the print-image screen. Secretaries liked the format at first, but soon complained about the slowness of system response when a document was being revised extensively.

□ User Interface

Menus: This package is almost entirely menu-driven. Text block operations, find and replace, format control, file storage and load, print functions, and special printer options are all controlled from full screen menus accessed by entering the appropriate command. The menu structure makes the product easy to use but slow in performing many special operations.

Control characters: None.

Function/special keys: Function keys and cursor control keys are both used. A high quality function key overlay is provided with the package. Cursor control keys, and special keys such as ESC, are used as labeled.

Command language: None.

Positive feedback: Feedback is provided for all operations affecting data integrity, in the form of a positive confirmation of user intent ("Y/N").

Status display: Status information is provided during editing. The status information is displayed around all four screen borders, with different types of information provided in different locations. Page number, cursor location, and document name are all displayed.

Help facilities: Help screens are available from most menus. A pocket reference card and a fold-out menu card are provided in the documentation.

□ Environment

VisiWord is fairly forgiving on computer environment—it is one of the packages which will run under DOS 1.1 on the older PCs with single-sided disk drives. Memory requirements are a little steep at 192K bytes, but since memory is used to hold the entire document during editing, you soon wish for more. Additional memory will be utilized to increase document capacity. One full page is added for roughly each 1K-byte increment of memory.

Copy protection is utilized on the VisiWord disk, and that normally annoying fact is made more annoying because it prevents the installation of DOS 2.0—there isn't enough space. After several days of changing disks we moved VisiWord to the B: disk drive and kept a work disk for documents in A:, which had COMMAND.COM and was bootable. A hard disk configuration seems the only practical approach, particularly if you are going to switch between VisiWord and the other Visi-family members.

□ Documentation

The documentation supplied includes an introductory manual, a reference manual, a pocket guide, and function key masks. The introductory manual is a step-by-step guide through the learning of VisiWord for the first-time user. It may be a little too simple, and it does not explain the more complex features of the package, the ones most likely to give you a problem.

The reference guide is comprehensive, clear, and well organized. The chapters are separated by user functions and each function is explained step-by-step. Screen images and examples of printed forms are supplied throughout the document. The integration of VisiWord with the other VisiCorp products is covered in detail, and proved sufficient for the average user to take advantage of the capabilities without difficulty. At the back of the reference manual is a section of examples which cover the normal use of the product quite well. The index is combined with

VisiCorp VisiWord
Word Processing Package

a glossary of terms, an interesting idea which most people liked.

A series of appendices provide examples on setting system options and printer characteristics. The location of these instructions proved helpful by preventing the non-technical user from encountering them (and trying them) by accident.

☐ Functionality

Generating letters and memos from shorthand notes or doing small reports presented no problems for either professionals or secretaries. The package has all of the standard word processor features such as full screen editing, cursor control, search and replace, fast movement through the text vertically or horizontally, headings, footings, page numbers, and the like. A nice feature was the ability to do a temporary indent of 1 or both margins on a paragraph. This allowed the insertion of a quoted block of text in the generally approved format, and made numbered subtopics easy to do. Column operations are also supported, making it easy to adjust the format of a report that contains columnar data.

With more complex documents the results were mixed. While the product worked very well with non-standard document formats (we tried 3-by-5 cards) and with predefined formats, we had serious problems in 2 areas. On documents for which page breaks were to be defined manually rather than allowed to take place as needed, we found that the entry of a forced page break made it impossible to continue to type. In order to force a break at a given line, we had to type 1 line past that point, back up, and force the break.

The second problem area related to update speed. The insertion of text in a part of the document already keyed seemed to overtax the display capabilities. An average typist was continually over-running the display by 1 or 2 words, and a fast typist got so far ahead of the systems that on 2 occasions a MEMORY PARITY ERROR occurred. While we cannot positively attribute this to the overrun, it has never happened on the system with any other software used. The display lag problem was eventually encountered by each user and was universally annoying. A key entry typist found the problem so acute that it prevented maintenance of production.

Printing with VisiWord is convenient since spooling of print jobs permits concurrent editing. Both editing and printing are slowed by this concurrency, however, and the objections to editing speed even without competition with the printer prevented full utilization of this feature. Direct printing is also an option, and most users tended to select it. Printer setup strings can be defined so that the printer can be placed in condensed character mode for such tasks as printing large computer-sized reports on standard typing forms; a practice which eliminates the need for reduction in copying the document. Printer setup messages can be defined and will display for the operator even in spool mode. These can be used to remind operators of the need to change ribbons or other print-related document aspects;

we used them to indicate that special forms were needed for specific jobs.

☐ Ease of Use

All user classes found VisiWord easy to use. The screen has a reverse-video border to mark the page limits, and a status line below the display shows the current command options. The procedure is very similar to that used for VisiCalc, and users with some experience in that package found the adjustment quite easy.

Keying-oriented commands such as cursor control, backspace, and page movement were all handled by the appropriate PC keyboard key. More complex editing functions, such as margin control, delete and un-delete, centering, etc, use the function key pad. Other commands use the status menu. The number of commands available, and therefore the functionality of the product, was less than that of other word processors, and users felt that more functions should have been mechanized through single key-strokes. The initial help list provides a hierarchical display of the command structure available, so you don't have to search around for a path to the command you need. This chart is also found in the documentation in large and easily-hung form. Several users copied it to keep on the wall next to the system during use, or beside it as a reference. Deleting text can be "un-done", but other actions are not reversible, something some users found a disadvantage. Block moves that accidently rearrange text were particular causes of cries of dismay, and these cannot be reversed. You can, of course, re-mark the block and move it back.

When using a printer which does not microspace adjust, the use of block right margins can result in a lot of empty space on some lines, particularly on technical documents with long words. VisiWord provides a "ghost hyphen", which can be keyed at any syllable break in a word but will actually appear only if VisiWord causes a break in the word at the hyphen for format purposes. This cleaned up technical documents considerably when it was used.

Status-line commands and "help" are both menu-structured. This makes the package easy to use. Generally, the menus appear in the status area of the display and are not destructive of the text display. The menu structure can get a bit ponderous, requiring as many as half-a-dozen operations for such non-editing functions as writing to disk.

☐ Support

According to the documentation, only users who have returned their warranty cards are eligible to use the support hot line phone number, receive credits toward the purchase of new program versions, have defective disks replaced, or get another disk to replace one that has become damaged in use. Presumably this prevents any recourse for users who have just received the software and whose warranty cards are still in transit.

The primary support point for VisiWord, according to the material supplied with the product, is the local dealer. We called ours on the problem with the forced page break and

VisiCorp VisiWord
Word Processing Package

the memory parity error message. They said that they had not encountered either problem and suggested we report it to VisiCorp.

The customer hotline for VisiCorp is not an 800 number, and if you are located anywhere but in the Pacific standard time zone you may have to wait for 8:00 AM in San Jose. We did, and called promptly at starting time for support. We were told that the VisiWord specialist was on the phone and had a call waiting. We left our number and told them we were having a problem.

Within an hour we were called back by a knowledgeable and helpful specialist. The problem with the forced page break had already been reported and was scheduled for correction, probably in version 1.2. That version was also said to increase the speed of the package in insert mode, which by preventing the typist from setting ahead of the display would presumably correct the memory parity error problem. We were told that version 1.1, already released, would be mailed to us shortly. No firm date for the release of Version 1.2 could be provided.

☐ System Interface

VisiCorp provides no information on the file structures used by VisiWord, and no utilities are provided to support the interchange of files with non-VisiCorp products or with other computers.

Files can be exported to a standard text file by "printing as an IBM DOS file." This suppresses the headers and footers, if any, and printer control information. You can also write a print-image file. Files printed to an IBM DOS file rather than to print-image on disk can be input to most IBM PC language processors; this is the only way in which VisiWord can be used as a source editor.

■ PRODUCT OVERVIEW

☐ Terms & Support

Terms ● VisiWord is available for purchase only from VisiCorp, through computer dealers, software dealers, and mail-order firms throughout the U.S. and internationally.

Support ● primary support point is local dealer; further support available through VisiCorp non-800 hot line; return of warranty card entitles user to receive credits toward purchase of new program versions, replacement of defective or damaged disks, and use of hot-line support service.

☐ Component Summary

Software elements consist of 2 programs: VISIWORD and INSTALL. VISIWORD is a word processing program, supplied on single-sided IBM format diskette, and used during program load or selection of help functions. INSTALL is a utility program pro-

LCNS: license fee.

vided to transfer the VisiWord package to hard disk, used only at installation time.

VisiWord:

$375 lcns

☐ Computers & Operating Systems Supported

VisiWord is supported for the IBM PC, PC/XT, Compaq computer using MS-DOS, Columbia computer using MS-DOS, and other IBM-compatible systems.

☐ Minimum Operating Requirements

VisiWord requires 192K bytes of RAM, 1 double-sided diskette drive or 2 single-sided diskette drives, a monochrome display or color graphics card, and monochrome or color monitor. Hard disk is supported if available. Requires PC-DOS 1.1 or 2.0, or the equivalent MS-DOS operating system.

☐ Features

Display Type ● display is full screen and print-image, excluding special printer options such as boldface, underline, sub and superscript, and overstrike.

Display Feature Utilization ● the reverse video capability of the IBM screen is used to indicate text that is marked for block operations.

Command Structure ● most VisiWord functions are menu-driven; some commands are performed via function keys, or special keys such as HOME and DEL.

Error Recovery ● text deleted using the delete function keys may be restored using another function key; text deleted using the DEL and backspace keys may not be restored; characters deleted using the delete text and delete column options may not be restored, in addition the use of these options destroys the buffers containing text previously deleted using the function keys, preventing subsequent restoration of text deleted before the column or block text operation; no backup file is provided.

Block Operations ● block operations provided include deletion, movement and copying of text; also provided is the capability to delete, move, and copy columns; a column alignment capability is provided as well.

Merge/Print Functions ● direct and spooled printing is provided; files may be merged for printing; files may be "printed" to disk for spooling.

Spelling Check/Aid ● none standard; an optional spelling check program is available; this package provides suggested spelling, automatically capitalizes words when they are replaced, and flags words which are typed twice in a row; all occurrences of a misspelled word may be replaced at once; misspelled words are marked by reverse video during the correction pass.

Multiple Window/Multiple Document Support ● dual text windows are provided; information may be passed between the windows with move and copy operations; different documents may be edited in each window.

☐ Other Facilities

VisiSpell can be used in conjunction with VisiWord. VisiSpell is a spelling checker program.

VisiSpell:

$225 lcns

● **END**