

HARD COPY

What's New

January's meeting provided some timely and useful information.

George Campbell held a discussion on software viruses and a demonstration of SCAN and CLEAN shareware products. SCAN searches your floppy drives and hard disks for a multitude of viruses, worms, and trojan horses. Once the "bugs" have been identified, you can remove them with CLEAN.

Angela Kaddilak from Softview demonstrated MacInTax for Windows. This tax preparation product was developed for the MacIntosh. With the introduction of Windows, Softview developed a version for PC users. Hence the name MacInTax. This program runs under Windows 3.0, which may be a deterrent, depending upon your opinion of Windows. At the end of the demonstration, two packages were raffled off. I won't mention any names, but if you left the meeting early, you may have lost out on the prize. The owner of the first ticket drawn was not present to claim the

By John Ewing

software, so a third ticket was drawn. Too bad for the early outs.

George will be hauling in his newly acquired CD-ROM player and disks which he purchased from DAK catalog. It's quite amazing what you can get on a little platter. See a whole encyclopedia or atlas on a single disk. Do speed searches for particular topics. Or if you wish, use the CD-ROM player to listen to music while using your computer for something else.

"This coming month will prove to be one of the most exceptional meetings we have ever had at SLO Bytes," says our President, George Campbell. Reference Software, authors of Grammatik IV and Grammatik for Windows will show you how to become an expert writer with their package. Remember the demonstrations from WordPerfect? What we hear from Kellie Mecham, repre-

Continued on Page 5

Up Your Cash Flow, A Review

by Bob Hunt

SLO Bytes PCUG

Many professionals and businesspeople have yet to avail themselves of the greatest tools ever known for the pursuit of the elusive competitive edge, the personal computer. Many others have spent fortunes in cash and countless hours on computer hardware and application software, only to find in frustration that any gains in efficiency hardly offset the costs, often replacing poor control with near chaos.

The horror stories abound and most of us have seen at some time or another a bank, large retailer, or other major operation suddenly become crippled due to a computer error or malfunction. Perhaps a wise business decision, in light of these observed conditions, would be to devote resources in other

Continued on Page 4

CONTENTS

What's New	1	Calendar	4
Up Your Cash Flow	1	Software Library	5
DAK's Sony CD-ROM	2	Bits & Bytes	6
The Family Guide to Educational Software	2	Hard Disk Backup	6
Sign Designer - For Those Special Occassions	3	Modems	7
		What Is GIF?	9
		Club Information	9
		Treasurer's Report	9

Club Officers

President George Campbell
Vice President Sam Powers
Treasurer Bernice Meador
Secretary Bob Ward
Editor John Ewing

DAK's Sony CD-ROM

by George Campbell

SLO Bytes PCUG

A general interest message found on our BBS and written by our club President, George Campbell. See page 9 for BBS information. ed.

Hi all, Well, I broke down and ordered that external CD-ROM drive that DAK is featuring in its current catalog for \$699. It arrived, and I thought I'd let people know about it, just in case anyone else is thinking about ordering.

The drive, a Sony, works just fine. The six disks that DAK includes are also quite good. The 21-volume Grolier Encyclopedia is very thorough and easy to use, and includes lots of color illustrations (VGA required). Two atlas disks, for the US and the World are also pretty nice, and you can print the maps and text info, which should make them very nice for school reports, etc. The multi-language disk offers a large list of dictionaries, and can translate words from a large group of languages, including Chinese and Japanese (characters and transliterations). The "Library of the Future" disk contains 450 books, with excellent search tools. It has the complete works of Shakespeare, along with tons of other classic books, and would be very useful to anyone studying literature. There's a "Reference Library" disk, which has stuff like quotation dictionaries, a good thesaurus, legal forms, and much more. Also very nice.

Altogether, this makes up a very nice package. There was just one thing I didn't like. The stuff came with literally no instructions, forcing me to figure it all out for myself. Fortunately the adapter card and drive worked fine with the default jumper settings, and the software installation

program was automatic and did a good job.

Finally, the drive can also play audio CD's, under control of a software program. A headphone jack, and connectors to hook the drive up to your stereo are included. This audio capability is something that the DAK catalog didn't mention. If you have school-aged kids, I think this package is a real must-have item, with all it's easy-to-use information. With the price of a good encyclopedia hovering around \$2000, it's a real bargain, and the software lets you save data from all the applications.

Anyhow, that's the report. If you have any questions, just leave Email here or give me a voice call. I'm in the book. George

###

The Family Guide to Educational Software

by Abdallah Clark

Milwaukee Area PCUG
Blinkin' Cursor, September 1989

Parents with computers at home have frequently asked me to suggest appropriate software to feed the need of their children for substantive help in school. It's easy to understand the difficulties confronting them. They are invariably concerned that the commonly displayed software in stores does not include many selections that are useful supplements to homework or provide entertainment and scholastic value as well. Games and "business-suited" software predominate the shelves, with few exceptions. Anyone who does not have the time to research magazine reviews and finds the packaging information limited will find the Family Guide to Educational Software a valuable resource.

This guide is actually a catalog of software for the Apple II series, IBM-PC and compatibles, Commodore 64, and Macintosh, but stands high above the usual software catalogs, which are little more than colorful price lists. Each program is described in more detail than usually found elsewhere. The recommended age range or grade levels appropriate for a given package is always specified, also. Each program description lists the computers on which the software runs, and any unusual requirements. The descriptions vary in length from a paragraph or two up to a full page. There are also two indices which are both alphabetical by program name. One indicates the page number for the program description. The other indicates the computer and award status. It is refreshing to note that the number of packages for the Apple II series of computers and for the IBM and its compatibles is almost equal. The really unique feature of this guide is that does not attempt to cover the entire field of educational software. Rather, it offers premium software packages, which are teacher-certified and have often won national awards for excellence. In fact, this guide includes a listing of software and the specific awards each has received. Among the critics consulted are the National Educational Association, the Educational Products Information Exchange, and the Professional Software Programmer's Association.

The guide is interesting in that it makes an effort to be informational, not just commercial. It has almost no advertising at all. Its introduction will be very interesting to the first-time user of educational software. It has nine small sections, including five on the different kinds of educational software: practice and drill; learning games; creative discovery; tutorial; and simulations.

Continued on Page 8

Sign Designer - For Those Special Occasions

by Bob Ward

SLO Bytes PCUG

On occasion I've had the need for a good program to print out large and long banners. Both PrintShop and PrintMaster have acceptable banner programs which will print out large block letters with a graphic at either end if you wish. Recently I came across another banner program called Sign Designer from Power Up Software which gives a much crisper, cleaner output with more versatility. It's nothing fancy, just copy the files to a subdirectory of your choice and type SIGN to start your program.

What it will let you do with the banner is the important difference between this program and others. First you have a choice of 3 different type styles; choose from Executive, Gothic, and Block. Secondly you can create up to 10 lines of different type styles each with 123 characters all on the same banner. Any one line can be 1/4 inch to 8 inches tall, although a combination of lines can't be more than the 8 inch width of the paper. Sign Designer's Menu

The menu is self explanatory. There are 10 identical lines, you fill in the blanks. First you choose the type style; (E)xecutive, (G)othic, or (B)lock. Next choose the height of .25 to 8 inches. Finally type in the line of text you wish to print up to 123 characters in length. Use either caps or lower case, it will print either. If you're not too good with math, don't worry, Sign Designer will not allow you to print another line if you try exceeding the combined height limit of 7". You also have the option of making the lines in your banner left justified or centered.

Function Keys

Sign Designer makes limited use of function keys. F1 is the Message Help Screen, which will give the user a brief description of the menu. F2 will either list or print the instruction manual... a total of 5 brief pages. F7 exits to DOS and F10 continues your operation. Since most programs tend to use F10 as the exit key, I'd like to see Sign Designer follow suit with most other programs. Also Ctrl-Home is used to clear the existing message if you want to start over. A function key would have been more appropriate and easier to remember here.

Print Output

Sign Designer prints to any of 6 printers: Epson, IBM Graphic, IDS Prism, Okidata, NEC 8023, or C.Itoh Prowriter. You can choose between two print modes; draft or high density. Although the high density is said to have better quality print, I really didn't notice a significant difference in the letters between the two modes. High density was much darker, of course, as the print head did a triple pass over each line. But in both cases the letters were very sharp, with only an insignificant amount of "jaggies" on the curved lines. From the distance banners are typically observed, the print appears amazingly crisp and clear.

Power-Up also sells pin-feed seamless paper on a 45 foot roll in 6 colors if you want to get fancy with your creative abilities.

Documentation

Sign Designer comes with a four page fold-out brochure. Here you will find the bare essentials on how to use the program, make a back-up copy of the original disk and a tear-off registration card.

If you need more documentation you will find it on the disk. Just 5 pages of very simple and straight forward instructions with a table of contents to boot! You are told how to enter a message and print it. Should you run into trouble printing a banner, there is a list of things to check before calling Power Up's toll-free number for help.

I should have read this section several times although the answer to my problem was quite unusual and not in the documentation. I designed a test banner but could not get it to print. Seems after checking several cables, I found our pet rabbit, who HAD the run of the house at that time, ate through the power cord on my print buffer box. No fried bunny (the power must have been off at the time) but I wasn't very happy; my buffer box had been violated by a rabbit! That problem has been solved with the installation of a two foot high "bunny barrier" in front of the door leading to my computer.

If you want to add graphics to your banner, you can still use PrintShop or PrintMaster to place a graphic on either end of your sign. This way you can combine the graphics of one program with the superior output of another.

In summary, I find this program very handy for those times you want to make banners for parties or special occasions. The multiple line format makes this program unique over most other banner programs.

Power Up!
2929 Campus Drive
P.O. Box 7600
San Mateo, CA. 94403-7600

Sign Designer \$39.95
Banner Band - Seamless paper \$11.95

Bob Ward is the Secretary and Librarian for SLO Bytes PCUG and contributes often to Hadr Copy. ed.

Up Your Cash Flow

areas for now. For instance, it may be a lesser evil to be overstocked in slow turnover inventory and understocked in the better moving products, so you lose some profits but hold tangible assets, whereas time and money spent to attempt to establish controls of such things often exchanges one set of problems for a new set, while nothing is left in hand to show for the effort!

If you are considering, or are already in the process of, incorporating a computer into your business or personal life for the purpose of money management, whether you already have a computer or not, I believe you will acquire nearly instant insight from this fine little product from Granville Publications: "Up Your Cash Flow", by noted CPA, Harvey A. Goldstein.

What it is -

Up Your Cash Flow is actually two stand-alone products; The book, (a wonderfully concise and pointed business guide) now in it's tenth printing and rated in the top ten books for business libraries by USA today. I first read the book cover-to-cover, 170 pages of sharply focused axioms and anecdotes related to smart business practices and pointers useful to individual conduct as well as business management. This is NOT a software application manual by any means but one chapter in particular deals very well with the questions and considerations pertinent to anyone deciding if and how to begin using computer automation in their business or profession.

The software application (contained on a single 360K diskette) has no manual, indeed is even advertised as having and requiring no manual, comes with the installation and use instructions on two 8" by 5" cards. The program installs itself to a hard

disk quickly and easily and is well behaved - that is, it won't scramble your root directory or AUTOEXEC and CONFIG files as some products can. It is menu driven and fairly simple if the menus are used in sequence as the guide card advises. From here the simplicity begins to diminish dependent upon the level of sophistication which the user may desire of the ultimate output from the very powerful tool.

What it Does -

Someone who uses, or has used, a computer accounting system or software may be familiar with the type of report and budgeting capabilities that are available with these applications. However, most of us have little idea of the meaning or usefulness of such reports without first having to spend the time and money for systems, bookkeeping, data recording and compiling, and usually the services of a professional accountant to format and interpret it for us. Wouldn't it be great to be able to sample the benefits and possibilities without such a huge investment in time and money?

Up Your Cash Flow is the application to help you do just that, and a whole lot more if you are willing to spend some extra time and effort. Up Your Cash Flow is designed to provide one with nearly all of the reporting, budgeting, profit and loss forecasting, projected balance sheet, and "What if" analysis' that a full-blown accounting package does, as well as many powerful spreadsheet functions and reports, for just \$129.95 list and only as much data entry as you feel is required for your desired level of accuracy!

Many "Entities", (up to 99) can be created in a session, with 99 "what if" analyses per entity. Sales of product or services can be plotted and tracked by product or salesperson or department, by month, accounting

period, or year. Expenses, including payroll, payroll taxes, interest amortizing, most any thing you might track for business planning is provided for in the program. You can use it to crank out a balance sheet, budget report, income and expense statement, it does nearly everything except the actual database and maintenance of a complete accounting package.

The output - reports, spreadsheets, trial entities, etcetera can be sent to a 132 or 80 column printer or a laser, or saved to disk files to be loaded and used or printed later. The reports and spreadsheets are formatted in standard business styles and there is little flexibility for report design compared to many commercial database and accounting packages, but then this is not meant to be a full featured application. Up Your Cash Flow was designed by CPAs so the reports available are just great for impressing clients, lenders, and staff with a professional look.

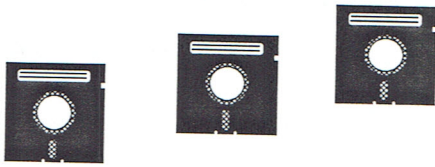
Up Your Cash Flow, version 2.0 comes with a 30-day money back guarantee and technical support is free by calling a toll-free number; two features no longer included with most major applications. I recommend anyone interested in the use of a computer to manage money to give this one a try. The number for ordering direct and technical assistance is: 1-800-873-7789.

Bob Hunt is a member of SLO Bytes PCUG. In addition to his Refrigeration Heating and Air Conditioning business, Bob is also a computer consultant. You can reach him at (805) 466-3330. Bob is a regular contributor to Hard Copy.

Calendar

February 3rd

Kellie Mecham, representative from Reference Software will demonstrate Grammatik IV and Grammatik for Windows.



SLO Bytes Library

Here's a list of disks I am adding to the library this coming month:

#402W Windows 3.0 programs:

- CASELINR - make case liners for your audio cassettes.
- GNUCHESS - good Windows chess game.
- WINEXIT - always exit Windows without crashing files.
- WORMWA - like Centipede.
- WSMOOTH - smooth scroll for text within Windows.

#403 Utilities:

- SIC20 - compiler for BASIC.
- BBSMETER - like a meter on a cab, except for when you're on the phone or toll BBS.
- DISKDUPE - duplicate disks in single pass.
- POLYCOPY - another disk duplicator program.
- DRX100 - move between compressed and uncompressed executable files.
- PKLTE10 - will compress EXE & COM files up to 50% and yet they are still executable (excellent program!).
- EMSCHK - checks the configuration of EMS memory.
- MPMPRINT - print IBM upper ASCII on Epson printer.

#404 Utilities:

- HYDK411 - HyperDisk 4.11 disk cache. In some cases better than SmartDrive.
- STRIP_CR - remove all carriage returns from any ascii file.
- TXTOUT13 - change WordPerfect files to ASCII.
- VRAM38 - powerful memory manager.

#405 Utilities:

- LB-V114 - DOS extension utilities for Chips & Technology chipset.

SWFTHelp - create your own help screens for TSR.

SYSID43 - system ID check, 12 screens.

ZSIZE12 - will split any ZIP file into smaller ZIP files.

#406 Education:

- BUDDY1 - Study Buddy Flash cards.
- FLASHWRD - another flash card generator (by George Campbell for me!).
- HYBRID - genetics program.
- RURC - excellent Calculus program by University of Arizona. A must have if you're into that kind of thing.

UPDATES:

#020W - UNICOM20

#340 - Format Master to ver 3.33

#381 - CLEANP72, SCANV72, VSHLD72

###

FLOPPY DISKS 4-SALE at the meeting

Royale Grey DSDD 360K
Unformatted Floppy Disks
with labels, tabs, and sleeves
70 Cents Each

MEI DSDD 360K
Unformatted Floppy Disks
with labels, tabs, and sleeves
50 Cents Each

High Density Disks 1.2 MEG.
75 Cents Each

3.5" 720K
Unformatted Floppy Disks
90 Cents Each

New Library Disks
90 Cents Each

Bits n' Bytes

*** For some unknown reason several members from Los Osos did not receive their December newsletter. I will have 15 copies of the December newsletter waiting at the February meeting for those of you who did not receive one in the mail.

*** If you are interested in starting a WordStar special interest group (SIG) please call Jules Lieber @ 528-1566. It would probably be held from 12 - 1pm on the same day as the meeting.

*** After you copy disks from our library please make sure they are returned to their respective places in the disk boxes. Also we are missing #49 and #62 from our library. Please check your disks to make sure you have not mistakenly taken them home.

*** Left in the library room after the meeting: a 3.5" floppy disk box with about 15 disks. Call Bob Ward to claim.

*** Note our new store under "Discounts" on page 9. Welcome Los Cerros and thank you for your generosity.

*** Just a friendly reminder. Because there are so many people copying disks during the meeting we have had a policy in the past of no more than 10 disks at any one sitting if others are waiting for a machine. You may be the lucky one this time (sitting at a machine for an hour), but you may be the one waiting in line next month. Sam will be monitoring this more closely in the future.

What's New

sentative from Reference Software, "You haven't seen anything yet!" I think this is one to attend. You may walk away with a copy of Grammatik for attending the demonstra-

Making A Quick Pick

Copyright 1990, Lotus Publishing Corporation

Bits & Bytes, October 1990

The task of picking the best 386SX computer appears to be extremely complicated.

Counting portables, there are more than one hundred 386SX-based systems on the market--and more to come. But there are some general rules of thumb that will make your selection of a 386SX a far less challenging task.

Plan on spending about \$2,500 to \$3,000 for a 386SX system equipped with a 40-megabyte hard disk, 1 megabyte of 100-nanosecond memory, and a VGA display adapter and monitor. The system should also include at least one 3 1/2 or 5 1/4 inch high density disk drive.

(HARD COPY ed. note: a quick look at any of the trade journals will reveal that these prices have fallen tremendously. ed.)

Avoid systems from companies such as Hewlett-packard, Wang, Data general and even IBM. These manufacturers tailor pricing for their largest corporate customers. Though generally of superb quality, styling, and design (not to mention impressive durability and performance), these systems can cost substantially more than a comparable system from a well known PC vendor.

- Consider your needs. Does the system have an 8 or a 16 bit VGA? If you're doing graphics, you'll want the latter. Does the system come with a sub-30-millisecond hard disk or disk-caching software? If you're a database maven, you will probably want all the speed you can get. Does it come with system diagnostics,

ROM-based setup programs, and MS-DOS? Any system you purchase should include those in the base price.

- Consider mail order. Many of the well known mail-order companies cater only to the PC market and have done so since their inception. Some of these companies include the equivalent of "great products at great prices" at the top of their business plan. But be careful here and try to deal with companies that have won a national reputation for their products and customer support.
- Consider service and warranties. Even the humblest mail order companies are now providing 30-day money-back guarantees, on-site service, one year or more of parts and labor warranties, and other long-term service promises. You should also demand some or all of the above if you buy from a local retail store. Of course, a fly-by-night mail order firm may not be around to deliver on its elaborate promises.
- If you buy from a local computer store, don't buy the line that a substantially higher price is offset by better service. Sometimes it is, often it's not. In any case, demand a written service policy and see how it compares to those of the larger mail-order companies.
- Finally, don't get too hooked on the most recent product review appearing in any of the popular trade magazines. Reviewers sometimes have a bad habit of gushing over the newest PC on the market - just read some of the beyond-belief reports of the early 80486 systems. Stick with reputable companies, look for the cheapest price, and don't spend too much time lamenting your decision.

If you've followed our guidelines, you've saved yourself lots of reading and teeth gnashing.

Hard Disk Backup

by Hugh Bayless

Monterey Bay PCUG, November 1990

Central Point Software, the producer of PC TOOLS is now offering their superb BACKUP part of PC TOOLS as a separate program. While there are many backup programs, ranging from the simple DOS COPY command to well-known programs such as FASTBACK and Norton's new backup program, there is no program we have tried that is easier to use and more efficient and foolproof than the one in PC TOOLS.

PC TOOLS BACKUP is cast-iron reliable, with bit-for-bit verification of all backed-up data. If as much as 13% of the media is bad or damaged, it can still provide full recovery. If you backup regularly, as you should, BACKUP only backs up files that are new since the last backup, a great saving in time.

Unlike many other backup programs, PC TOOLS BACKUP can backup to any DOS device; floppy or hard drives, Bernoulli cartridges, etc. It's fast, backing up at speeds over 3 megabytes per minute. And, it's compact, reducing file size in the backup copy by up to 60%.

You can select the files you want to back up, you can provide for backups on a regular schedule, you can do incremental backups, and PC TOOLS BACKUP even gives you an estimate of the time required for the backup you plan to do.

It functions with any PC, XT, AT, PS/2, or 100% compatibles with DOS 3.0 or higher and 512KB of RAM. It even has mouse support.

While we wouldn't be without the complete PC TOOLS, if you already have the tools you want but are looking for a first class backup program, Central Point BACKUP could be it.

Modems

by Bill Duncan

Santa Barbara PCUG
SBPCUG Newsletter, October 1990

Modems are becoming more and more popular. A modem is a device which attaches to your personal computer and your phone line. Using a software package to control the modem, you can then connect to another computer equipped with a modem and exchange data such as programs or files. Modems transmit the data at different speeds measured in bauds or bits per second. Baud speeds range from 300 to 9600, with the most common currently being 2400. Modems which transmit at 2400 baud generally cost from \$100 to \$250. Modems which transmit at higher speeds generally cost \$500 and up. For the beginning user a 2400 baud modem should be more than adequate.

Hayes is an excellent product, but many other manufacturers produce equally reliable modems.

Another consideration in purchasing a modem is whether to get an internal or external unit. An internal modem is a circuit board which fits inside your computer's case. The external modem has its own case and sits next to your computer. Internal modems are cheaper because you don't pay for the external's case nor for the serial cable to connect the modem to the computer. However, internal modems don't have the indicator light display of the externals, which can be helpful when you are wondering what is going on with the

modem. And the external modem is a relative snap to install compared to the internal modem.

A serial port is required by the modem. Most personal computers have at least one serial port. Sometimes this port is used by your printer in which case you will have to add another port for your modem. If your one serial port is in use by a mouse, you may consider buying a bus mouse which will free up the serial port. Either way before buying a modem be sure to find out the status of your serial port.

Hayes Microcomputer Products is the granddaddy of modems, just as IBM is the granddaddy of personal computers, which is why most modems are Hayes compatible.

Hayes is an excellent product, but many other manufacturers produce equally reliable modems. The trick is to talk to friends for their experience with various brands and to shop around for the best price. I have personally had great success with Everex modems, and the more recent modems from Zoom. If you decide to get an external modem, be sure to get a serial cable to connect it to the computer. The cable does not come with the modem.

Once you have purchased and installed your modem, you need software to use it. Many modems come with their own software, but I have found these programs to be lacking. I highly recommend a shareware product called Qmodem, available from the SBPCUG BBS and other sources. Shareware is a concept of software which is distributed through computer networks. It gives the user the opportunity to work with the program before actually paying for it. If you decide you like the product, you then register with the producer. Qmodem costs \$30 to register. This fee entitles you to all future upgrades at no additional cost, unlike most regular commercial packages. (Lately I find that I buy a

software product only to get a notice a few months later for the new upgrade "for only \$50!") Qmodem has just released version 4.2, and it is terrific. Easy to use and just loaded with features.

Finally, there are the services available such as CompuServe, GENie, Prodigy and PC-Link. These are commercial services which provide different features such as bulletin boards, forums for exchanging messages in real time, and file downloads. For the beginning user I suggest subscribing to Prodigy. It is extremely easy to use and relatively inexpensive. You pay a flat monthly fee, you connect to a local number (no long distance charge) and there is no charge for the amount of time used online. This gives the beginning user an opportunity to spend as much time as necessary to get familiar with the service. Another advantage is the broad range of information available on Prodigy, from computer news to business news, bulletin boards focused on everything from television shows and movies to household tips and cooking. A fairly good encyclopedia has recently been added. The drawbacks to Prodigy are its heavy advertising (which I quickly learned to ignore) and the lack of file downloads.

When it comes to downloading files, I have found local bulletin boards to have a rich selection of programs and files. Our own SBPCUG BBS has an excellent range of software available, from games to helpful utilities.

CompuServe and GENie are more suitable for experienced computer users. CompuServe can be very expensive with an online charge of \$12.50 per hour. GENie has recently instituted a new price structure which offers some free online time. PC-Link is geared to Tandy users and costs around \$6.00 per hour in connect time. I found it to be disappointing.

What Is GIF?

South Jersey IBM PCUG
Bits & Bytes, July 1990

CompuServe has developed Graphics Interchange Format (GIF) designed to serve a wide variety of graphics needs both within the CompuServe product environment and as a universal standard by which graphics can be exchanged between any parties through a network.

What is GIF?

GIF (pronounced "Jif") is a mechanism of storing high quality color graphics images in a way that can be exchanged between users of differing hardware. For example, it allows images created on an AtariST to be displayed on a Commodore Amiga or IBM-PC and visa versa. The GIF format allows for very high resolution, full color images that can be used in any application that requires the display of graphics information.

What Kind of Images is GIF For?

GIF images can be part of, but not limited to the following applications: Full color associate photo board - Business charts and graphics - Merchandise catalogs - Technical documentation - Schematic diagrams for field service personnel - Color radar maps - Medical illustrations - Art gallery - Exchange of user-created images.

How Much Resolution Can an Image Have?

In terms of pixels, or image dots, GIF is capable of defining images of over 16,000 by 16,000 individual dots. This compares with the average microcomputer screen of 320 by 200 pixels. Even laser printers are generally limited to about 2000 by 3000 pixels.

How Many Colors Can a GIF Image Have?

A GIF image can have up to 256 simultaneous colors contained

within it. Each individual color can be defined out of a possible set of 16 million colors, making photographic-quality images possible.

Does This Mean an IBM-PC Cannot Display GIF Images with 256 Colors?

All GIF images can be processed by all GIF software. The software is designed to make the best use of a specific hardware's capabilities with regard to colors. A best match is made between a desired color in the image, and the possible colors the hardware can display. Generally, detail of an image will be lost, but it should still be recognizable. On the other side, any image originating from an IBM machine should display exactly on a more capable microcomputer.

How Large are the Image Files in GIF?

This varies depending on the number of colors present, the size of the image and the amount of detail. GIF uses a sophisticated compression method that reduces the file size to between 1/2 to 1/8 the original file size. Even complex images can be economically downloaded. An AtariST image file of 320 by 200 pixels and 16 colors which would require 32,000 bytes on the Atari requires only 8,000 bytes in GIF format, a space savings of 4 to 1.

What Micros Can Support GIF?

Machines supported currently include: IBM-PC/MS-DOS family with CGA, EGA, VGA, or Hercules graphics boards - Commodore Amiga - AtariST - Macintosh family. The software files can be found in the appropriate hardware Forums and in the graphic Support Forum (GO PICS).

Where are Gif Files?

Currently many GIF files are available in the Art Gallery Forum (GO GALLERY) and the Quick Picture Forum. (GO QPICS) The CompuServe FORUM software has a GIF file type established for uploads of GIF

image files. Local bulletin boards have a variety of GIF pictures as well as GIF viewers. Look for VPIC, VUGIF and PICEM.

###

Educational Software

Each program's publisher is specifically identified in the listings, a practice becoming more rare these days. Educational software is typically not expensive, therefore offering little profit margin to broad-market, mail-order firms. They realize that comparison shopping is more difficult if one only has the title and a limited description of the product.

This guide had been published previously by the Garlinghouse Company. Older versions of it had more pages and even included actual screen from the programs. Compute! Magazine has published a similar guide in the past, but it only appeared during the Christmas season, and was not limited to educational software. Bowker publishes a review of software, as well, but the descriptions of each program are limited accounts and it is, again, a reference work covering all kinds of software.

The Family Guide to Educational Software is published four times a year by Haven Laboratories. One may get a free copy by calling 1- 800-848-0804. Help yourself if you need it. The only discouraging word I can give on it involves pricing. Every item is sold at its full retail price, unless a special, limited-time discount is in effect. It's certainly worth its \$2.95 cover price, too, in the event you can actually find it for sale somewhere, if only as a reference tool.

###

Club Information

The SLO BYTES Newsletter is a monthly publication of SLO BYTES PC User's Group located in San Luis Obispo, California. Information in this Newsletter is derived from both our own membership and other PC User Group Newsletters. The purpose of this publication is to inform our members of meetings and provide information related to the use of IBM PC's and compatible computers.

Membership: Dues are \$20 per year. Newsletter only is \$12 per year. Full membership entitles you to our monthly newsletter, full use of the public domain software library and discounts at local computer stores.

Article Submission: Deadline for submission of articles is the 15th of each month. Articles should be provided in ASCII format without any type of formatting from your wordprocessor including tabs, indents, extra spaces, or highlighting. We prefer articles on disk but will accept hardcopies if necessary.

Disclaimer: Neither SLO BYTES PC User's Group, its officers, editor, or contributors to this newsletter assume liability for damages arising out of this publication of any article, including but not limited to the listing of programming code, batch files and other helpful hints.

Reprinting of this Newsletter: Articles from this newsletter may be reprinted by other user groups if credit is given to both the author and newsletter from which it was taken. Reproduction of articles with a specific © Copyright notice is prohibited without prior permission from the original author.

Advertising: Commercial advertisers, request ad packet from Bob Ward. Members may advertise personal computer equipment or software for free. Submit your ad to Bob Ward.

Direct all correspondence to Bob Ward, 2100 Andre Ave., Los Osos, CA. 93402. Call (805)756-2164 M-F 7:30am - 5pm and (805)528-0121 all other times.

Editor: John Ewing, 1710 15th Street, Los Osos, Ca. 93402. Phone 528-7196.

Meeting Times

General meetings are held the 1st Sunday of every month, unless noted otherwise in the newsletter calendar, at 2:30 pm in the Cal Poly University Biology Department, Fisher Hall 286. Special Interest Groups (SIGS) meet at 1:30 - 2:15 pm.

New User's SIG - F.H. 286

Our Public Domain Library is in Fisher Hall 292. Hours 12 Noon till closing.

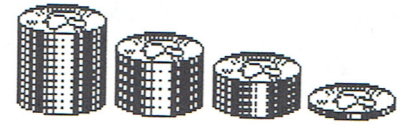
SLO BYTES BULLETIN BOARD

(805) 528-3753 2400/8/N/1

PC Files & Message Section

SYSOP: George Campbell

All Welcome - 24 Hours



Treasurer's Report

SLO Bytes PCUG Expenditures January, 1991

Beginning Balance:	+1375.69
Expenses:	
Newsletter 12/20/90	- 92.47
Postage	-150.00
	=====
	-242.47
Deposit 01/07/91	+585.00
Dividend	+ 19.24
	=====
	+604.24
Balance 01/14/91	+1734.46

DISCOUNTS

Star Computers 855 Morro Bay Blvd. Morro Bay 772-7827	5%	Any software in stock.
	10%	Paper, ribbons, cables, and other supplies.
Computer Logic 973 Foothill Blvd. #4 San Luis Obispo 544-8347	10%	Off list - all computers, software, computer peripherals, and products. Contact Bruce, Paul or Dave for discount.
WITCO Computers 3563 Sueldo, Bld. B San Luis Obsipo 549-0811	10%	Off complete systems, peripherals, supplies but not including software.
	5%	Off computers alone.
Los Cerros Computers 11545 Los Osos Val. Rd #A3 San Luis Obsipo 544-6399	15%	Above cost on computers and computer peripherals.
	20%	Above cost on software & supplies (Cost includes shipping & handling)

Ziff-Davis User Group Magazine Discounts

PC-Magazine - \$24.97
 PC-Computing - \$14.97
 Have your mailing label handy for renewals
 Call 1-800-777-2547 and ask for your
 user group discount

