

OS/2: IBM Climbs Down ...With Bells On!

by Jackson Hibler

Review of the August meeting

I couldn't believe my ears: is IBM ringing the changes? Those of you who have been with OPCUG for a while might remember an article I wrote for our June 1988 newsletter chewing over the then apparent attempt by IBM to "close" the PC architecture with their PS/2 micro-channel machine. This plan included OS/2, a "device independent" operating system which actually turned out to be one of the most device dependent pieces of software in the market. I felt it was a mistake then, and by golly it looks like IBM has come to the same opinion now!

Does IBM Listen?

I can hardly say it's a case of "I told you so", as I am sure IBM listens to no-one, least of all some techie gadfly from the boonies. What

"...for OS/2 to really show its capabilities as the next generation's operating system, it must be able to run this generation's DOS programs...fleas and all..."

it has listened to is the market and to its business. And the market has spoken. The PS/2 machines are indeed in a niche and OS/2 has withered for lack of accessibility. I assumed IBM would continue to dwell in its high tower out of pride, or out of misguided hopes, and eventually starve there. But it sounds like shareholders

would prefer another result. To get results, IBM must come back into the mainstream of personal computing: open its architecture and foster software and hardware links with competitors, so that all of them can be swept forward by a market that wants "second sources" and interchangeable parts--including software! After hearing from IBM's Gord Giddings and Doug Heintzman, I think we are beginning to see the results of a major turn-about in IBM's thinking. The OS/2 Version 2 being touted is not the product of an isolationist mind-set. To begin with, we were assured that for OS/2 to really show its capabilities as the next generation's operating system, it must be able to run this generation's DOS programs as they are, fleas and all, and run them better than they run now!

OS/2 Has The Power

OS/2 has powerful capabilities available to it for the job:

- Strict task isolation so that multiple sessions are not brought down by the failure of one program.
- Time-sliced multitasking so that one program cannot bring the rest to a halt by hogging machine time.
- Threaded code support so that new programs can have some internal processes run in the background while the user's access to the task is uninterrupted.

Tools that can do this have always been built into OS/2, but are now being expanded to allow programs that run only under DOS, Windows, DR DOS, etc., to be supported

directly. Gord claims 97% of present DOS programs will run unmodified, and in the background too! (But Desqview 386 HIMEM.SYS doesn't--yet.) And he says you won't even have to buy other operating systems to run their native programs under the new OS/2! "You won't have to buy Windows ...you won't have to buy DOS! It's all built into the new OS/2." A "new graphical paradigm" (the third?) is being brought forward: version 2 can look to the user like DOS, or Windows, or OS/2 version

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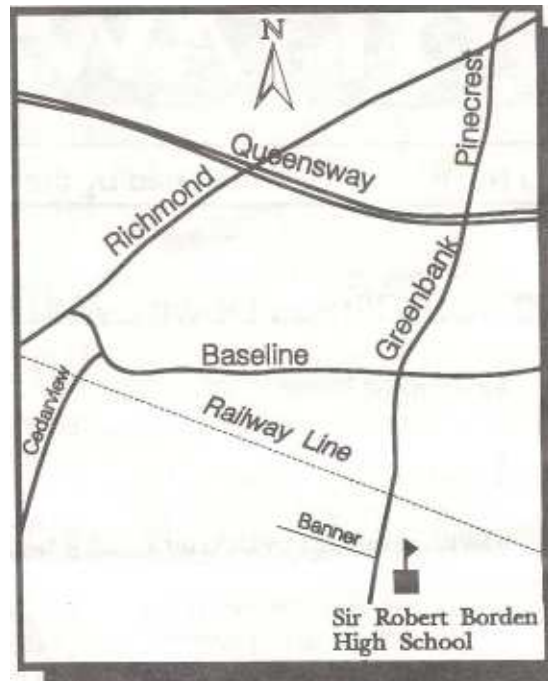
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OPCUG has a new permanent home- at last!

If you are beginning to think that the "G" in OPCUG stands for gypsies, you can hardly be blamed. We have, however, after an exhaustive and often frustrating search, found a new permanent home at Sir Robert Borden High School where we are being made to feel very welcome. SRB's auditorium isn't available on the last Wednesday of the month this academic year but we hope it will be next year. Most months the last Tuesday is free, however, so, from now until next June we will be meeting at Sir Robert Borden High School on the last Tuesday of the month EXCEPT in October and January. (Please see the Calendar below.)

It's great to have a place to call home. Just the same, nothing's sure 'cept death and taxes, so please check the PUB (747-7272) or the OPCUG answering machine (723-1329) *before you* set out each month.



Continued from page 1

1.3, or the new version 2, where objects are dragged and dropped onto other objects, user's choice. Lotus' Notes mail system will be integrated into the system. Pen-based and multimedia systems will be in it. I'm a bit confused as to just what won't be in it.

"The price is being reduced to \$240, less on the street". That means IBM is going retail with their operating system, just like Microsoft. (Are we really sure these guys aren't talk-

ing these days?) And no longer are you "on your own" when you run the new OS/2 on the competition's machines: "We want OS/2 to be on as wide a range of platforms as possible. We will warrant it on IBM machines, and we will support it, not guarantee it, but support it on non IBM machines!"

Time Will Tell

If this is more than talk, then this is indeed a new IBM open operating system: open support for their software on others' hardware! "We see

OS/2 as the linchpin of our operating strategy," says Doug. "We are talking about the future, here ...about a month...and a bit ...or two..."

Well, we can wait: we've waited three years. What I will be particularly looking for is more ISA and even EISA hardware from IBM to confirm this turnabout. If "open systems" and open architectures come to pass, it will be good news for users, and good news for IBM, too. Keep listening for those bells.

Leaving Us?

Remember that your membership is good for one short action-packed year. We want to continue sending you newsletters: however, if your membership expires this month this will be the last newsletter you will receive...until you renew. Check your mailing label for your expiry date.

To renew your *membership*, simply fill out the form on the back of the *newsletter* and send it in with the *fee* or see Harald Freise at the next meeting.

Calendar *(subject to change)*

Date	Location	Topic
Mon., Sept. 30	Sir Robert Borden H.S.	Quarterdeck
Wed., Oct.30	McArthur H.S.	WordPerfect for Windows
Tues., Nov. 26	Sir Robert Borden H.S.	Swap meet
Wed., Jan 29	Sir Robert Borden H.S.	Folio Views

The September 30th Meeting: Quarterdeck

by Julie Dustin

Despite the smart icons and colour palettes which make up the flashy products we are seeing everywhere, some industry analysts are saying that the memory market is the most dynamic in the computer business. In fact, RAM chips have quadrupled in capacity every two years. Don't you wish the human brain could increase its powers the same way!

At our last three presentations, we have seen how DOS 5.0, Windows, and OS/2 handle memory. Managing memory is not, however, the primary function of these products. At the September 30th meeting we will hear from Quarterdeck Office Systems Canada Inc., a company which does, in part, *specialize in memory management.*

As Jim Courtney, Canadian General Manager of Quarterdeck says, "Our aim is to provide enhancements to optimize the productivity obtained from computers." In fact, Quarterdeck with its latest Quarterdeck Expanded Memory Manager-386 Version 6 (QEMM-386) developed in the company's headquarters in Santa Monica, CA has earned generous reviews from industry experts and users.

OEMM-386

QEMM-386 for 80386-based PCs is a high-performance memory manager that provides expanded, extended and high (640K-1024K) memory management.

Courtney describes the product: "QEMM has unique features. It gives you the highest amount of high RAM, it's easily installed and provides the optimum conventional memory."

QEMM-386 Version 6.0 (now available), includes Stealth, a feature that maps ROM into other areas of RAM (a gain of 211K) and Squeeze which temporarily increases high RAM to assist in loading TSRs or device drivers that need this. It also contains a new version of Optimize, a program to configure and optimize

NEXT MEETING

Don't miss the boat...

DESQview
Quarterdeck
QEMM-386

THE JOLLY OPCUG

Climb aboard on
Monday, September 30, 1991 at 8 p.m.
at
Sir Robert Borden High School
131 Greenbank Road, Nepean, Ont.
for a presentation by
Jim Courtney of Quarterdeck

memory automatically.

Manifest

Manifest, a memory analysis and reporting utility, is also bundled with QEMM-386. Not only will it tell you how your system is using its current memory, it also offers suggestions on how to improve it.

DESQview

Quarterdeck's multi-tasking operating environment, DESQview, allows you to view information from several programs at the same time through viewing windows. DESQview-386, a combination of QEMM-386 and DESQview 2, allows you to run DOS extended and normal DOS programs simultaneously and is also compatible with Windows 3.0 in real, standard and enhanced mode. "With DESQview, you

can multi-task between *WordPerfect* and Lotus which are simple applications or more complex applications such as a database and a communications package," Courtney explains.

The September 11, 1990 issue of PC Magazine stated succinctly, "If your goal is to multi-task then Windows 3.0 is no substitute for DESQview 386."

Courtney's educationally-based presentation will cover memory management and multi-tasking in general. Following this will be a demonstration of QEMM-386 Version 6.0 and DESQview of which Quarterdeck claims one and a half million users. Yes, we will *see actual* proof that DOS and Windows applications can and will run with all of Quarterdeck's products.

Do you have a favourite application?

The OPCUG is looking for members to make a short presentation of their favourite software at the November meeting. Presentations will be 10 to 15 minutes long although shorter talks will also be welcome. Please contact Terry Mahoney at 225-2630 if you are interested.

There's a GOBLIN on the PUB

**by Jose Camplone and
Robert Parkinson**

This summary describes a new utility for putting many text files into one to save disk space. Download GOBLIN.ZIP and read GOBLIN.DOC to see the full range of GOBLIN's capabilities.

GOBLIN (the LIN-a GOB-bier) is a utility in Turbo Pascal able to transform text files into compressed executable code. It was originally designed to "compile" into a single file and display all of the small messages required by JOHNPUb (an automated communications package for "the Ottawa PC Users' Group BBS "The PUB"). As it evolved, it also acquired the capacity to transform long text files into "executable" auto-readable "code". It also acquired the capability of compressing the text files, using the Lempel-Zev-Welch (LZW) algorithm, before storing them in its own code. The program is particularly suitable for the creation of help or "readme.exe" files. You may create your own colourful GOBLIN-specific screen displays, as GOBLIN is also capable, using its own coding scheme, of displaying colour attributes for text files and of creating a limited number of sounds.

When called with a parameter representing an existing file, GOBLIN will "gobble" the bytes from that text file into its own code, compressing the source text before it does so. It will keep doing this with every file presented to it until reaching a limit of 100 files or 6M of disk space. Any one text file is limited to 64K bytes (65,521 bytes). But, while gobbling the bytes of text, it keeps track of the beginning and end of each file (also within its own code). So when you wish to display the text of any one of these files, you have only to call the "loaded" GOBLIN with a parameter indicating the ordinal number of the file held in GOBLIN. It will then happily uncompress and "regurgitate" the text to the screen.

If the file is longer than one
24-

line screen, GOBLIN will stop after displaying line 24 and prompt the user before scrolling to the next page. It will display the name of the original text file and the present page number in the 25th line prompt.

Once a file has been read-in, there is no easy way to remove it from GOBLIN. For this reason, it is recommended that an "empty" GOBLIN.FXE back-up file always be kept aside.

GOBLIN will attempt to compress every text file before reading it in. If the compressed text is equal or larger in size to the uncompressed...

"The program is particularly suitable for the creation of help or 'readme.exe' files. "

version, then it will desist and the text will be read-in uncompressed. Compression cannot be forced in these circumstances. On the other hand, the user can cancel the compression feature.

When followed by a parameter representing the ordinal number of a text file previously read-in, GOBLIN retrieves the text of that file from within its own code to RAM, uncompresses it to a "virtual" screen buffer and then outputs it to the screen. Optional second parameters permit various display modes.

GOBLIN may readily be used to read and display normal ASCII text files or screens, including all ASCII characters to decimal 255 (FF7t). However, more effective and flexible displays are made possible by GOBLIN'S own display codes. These permit full control of colours, background attributes (blinking, bright backgrounds, etc.) and sound. The process of creating such a screen display is much the same as with ANSLSYS codes, although the code sequences are quite different.

If GOBLIN detects a
mono-

chrome monitor, all colour attribute sequences will be ignored and files will be displayed in the default white on black.

GOBLIN can produce as many as 10 different sounds. They can be triggered from the text file using specific codes.

Because all GOBLIN commands return exit error levels, normally determined by the command line parameters used, GOBLIN is ideally suited for use in batch files.

Features

- GOBLIN saves space by taking many files and putting them into one, which saves the wasted disk overhead of multiple files.
- GOBLIN will display a list of all stored files if called with a "0" as the first parameter.
- GOBLIN is ideally suited for use in batch files.
- GOBLIN can display up to 64K of text in any one file.
- GOBLIN can display colours and sounds using a scheme like, ANSLSYS.

Limitations

GOBLIN files cannot be deleted from within a "loaded" GOBLIN.

GOBLIN output cannot be redirected to a printer or to a file.

GOBLIN gobbles anything, including non-text files which will display as garbage.

Conclusion

GOBLIN deserves a very serious look by all, not because it was written by OPCUG members, but simply because it is an extremely effective tool, especially for complex display groupings (for example, installation programs) and batch files. There is, in the authors' view, no other program like it available. And the price is right- it's free.

GOBLIN is on the PUB

GOBLIN, version 2.9, is now available on the "PUB".

DOS Shells: An Overview

by Eric Clyde

If you find the use of DOS commands inefficient or want a simple standard interface for file management and launching applications, a DOS shell program is a worthwhile investment. The September 30th meeting's *speaker*, Jim Courtney of *Quarterdeck*, will be demonstrating DESQview-386, a shell type program. To help you compare, *here is a general description* of the more popular products used by some OPCUG members.

What is a DOS Shell?

In its simplest form, a DOS shell is a program which lets you navigate through your files and run programs through choices made via menus, rather than issuing commands at the DOS prompt. Examples would be the DOSSHELL (which comes with DOS 5.0) and perhaps Word Perfect Office. Unfortunately the term is also used to describe complex, but still easy to use, file managers such as Norton Commander and *Xtree* (and *Xtree Gold*), and even such (pardon the expression) Macintosh-like desktop programs as Windows 3.0, Geoworks Ensemble, and PC Tools.

Shells take up Memory

Shells can indeed make life simpler, but they take up precious memory -- if you are working with large *spreadsheets* or other programs, be cautious about which shell you use -you may actually find that you do not have enough memory left. For example, I have a number of memory resident programs I like to use. When I loaded *Xtree* then tried to load *WordPerfect* through its menuing system and got the *message* that there wasn't enough memory left to load WP. (It would certainly be possible in this case to *revise my* WP setup to get around the problem, but someone with less *experience* might not know how to do this). My suggestion is to discuss your *requirements* with other club members, and ask them which

shell(s) they use and why.

MS-DOS Shells & Shareware Shells

If the idea of a shell attracts you and you have DOS 4 or DOS 5, you already have a shell that you can try. It is called DOSSHELL and it may be all you need. There are also over twenty *shareware shell* programs available either by downloading from the PUB or from the software librarian. I have not used any of *these*, but the ones recommended include 3D Menu Plus, Easy Access Menu System version 6.0, Fastmenu version 5.1 (a large program -- it takes almost 500K hard disk space), Marxmenu version 1.55, MS42A, Stereo shell version 1.02, and TreeTop **version 2.4**.

Commercial Shells

Of the commercial programs, perhaps the most popular in the *intermediate* group are Norton Commander and *Xtree* (and *Xtree Gold*). While they are both easy to use, Chris Taylor likes Norton Commander *because* it is great for navigating on the disk. It is also terrific for shuffling files and has a nice mini-menu that is easy to set up. The *reconfigure option* allows you to set up file extensions

such that, when you select a file, the application program gets launched (e.g. PKUNZIP -VB <filespec> while on a .ZIP file). It is reasonably small, fast, has a rudimentary built-in editor (no block moves, but not bad for batch files, etc). One of the best things about the Commander is that it is never in the way. Just start typing, and you are automatically entering commands at the DOS prompt under the Commander file windows. If you really want it out of the way, press Ctrl-O and the file windows disappear and you have a clear DOS screen in front of you.

The Bottom Line

Keep in mind that, although most of these products come pretty cheap money-wise, you may find yourself spending too much time figuring out the options or running out of RAM. After all, DOS is still a popular option with experienced users and amateurs alike.

For a *extensive list* of DOS shells products, refer to "Buyers' Guide: DOS Shells and Menu Programs" in the July 1991 issue of PC World.

(Thanks to Chris Taylor, Peter Moskos and Orrin Kerr for their comments on shells.)

Software Librarian Needed

Great Opportunity - Training Provided

After five years as Software Librarian, I think it is time to pass on the disks (so to speak). I will not be running for the position in the upcoming elections. If you are interested in software and would like to get more involved in User Group activities, why not consider running for the position? The job is not very difficult, and can take as little or as much time as you want (count on a minimum of a couple of evenings a month). I am happy to continue to assist in the software library.

If you are *interested in* more information, please contact me on The PUB, by phone at 727-5453 (evenings), or you can *leave a* message for me on the Group's answering machine at 723-1329.

Chris Taylor, Software Librarian

PUBtalk: A brief look at last month on the bulletin board

by Lynda Simons

Everything from fun and games to fury and gossip has streamed through the PUB this month. Those of you who don't log on are missing not only **useful information but** one of the **greatest soaps** available outside of TV. The only danger is that once you log on that first time you'll get hooked.

Among the topics of interest was a suggestion for another OPCUG publication.

On-line Technical Journal

A long series of messages dealt

with the suggestion for an on-line colour graphic Technical Journal. Subjects covered included the use of ASCII text files, ANSI color codes, GIF graphics files and hypertext techniques, as well as the **related hardware** requirements, principally speed and space.

(Side note from the editor: *An on-line version of the regular newsletter is in the pipeline. It will be character-based, but browsable.*)

Fun & Games

A number of mathematical puzzles appeared last month as well as this little word quiz. Question: What

are the three words in the English language which end with the letters "GRY"? Most people get "angry" and "hungry" quite quickly, but get angrier (and possibly hungrier) as they struggle to get the third word. The answer? There is no third word. Funny, eh?

Other topics ranged from article references through gardening, goats, philosophy and yachts. If you want to crew for someone or get rid of bugs, either in your PC or in your garden, drop in at the PUB.



Star Gazing

by Mark Edwards

"Space...the final frontier..."

Was it early Star Trek episodes that got me *interested* in astronomy, or the tremendous *sense of awe* that a star filled sky can bring? Whatever the reason, I have always liked to look up to the night-time sky and pick out a few stars, constellations and other heavenly bodies. I have a number of old star charts gathering dust, but have found star gazing on computers has definite advantages (the bugs don't bite and you stay warm and dry.)

There are a number of programs on the PUB for people who share my interest in star gazing, and here is a short review of them. Most can be found in area 11 as follows:

ASTRONOMY.ZIP

This is a fairly simple system with limited graphics. Probably fairly good for 1985 when it was written.

No Change to PUB Lines

The good news is we won't have to give up the hunt facility on the PUB lines: the bad news is that we won't be saving any money.

We thought we could save a substantial sum of money by buying a Bell option that would require our sac-

rificing our hunt facility. (The hunt facility means that if a line is busy when someone dials into the PUB, the call is automatically switched to the next free line.) IL turned out that we were misinformed and that the money saving option is not available to us.

MOONBEAM.ZIP

This is a step up in that it will plot star charts, but has a poor user interface and is fairly slow. Graphics are not very good.

PBAS11.ZIP

This is a collection of programs that includes ASTRONOMY, STARVIEW, STORM and MOONBEAM as well as OPTICS (design telescopes), SUNSET (find times for sunrise and sunset), Solar (same idea as sunset) Planets (data on position of planets in units that no-one understands). The Starview is not the one listed below, and only gives simple star charts. STORM is a program for tracking hurricanes, and is limited to U.S. latitudes. All in all an interesting, but not terribly useful package.

STARVIEW2IP

This is a fairly good program that has a mouse interface that allows easy changes to the display. Unfortunately, it is not set up for the ama-

teur, the controls are non-obvious. I found it not all that obvious which way was north, and how to set things like the date, time, position, etc.

STARW22421P

Another fairly good program, but also suffers from a poor user interface and it is slow (time to buy a 50Mhz 486!).

SKYGLOBE.ZIP

This is by far the best program, and is found in area 5 for some strange reason. This program gives a very good color star chart with selectable magnitudes, constellations, names and you can overlay planets. You can also set the program to move the stars a minute, hour, or day at a time. You can zoom in and out, print the chart and change your view (North/South versus steradians). A very interesting and well put together package.



Understanding Your System

Last month's article covered the basic care of a computer system. This month's column will familiarize you with the central processing unit (CPU) and its attached devices which we will classify as either input or output components.

Unless you have a portable or laptop, your new computer is comprised of a main box, a monitor, a keyboard and possibly a mouse. Portables have more or less the same parts, just packed closer together. You probably have a printer too. Chances are, however, that even if you managed to assemble your system yourself, you do not really understand how these parts work together. If you do, skip this article.

It's worth understanding how the components of your system interrelate so that you can troubleshoot confidently.

A Computer is a Chip

A personal computer is actually just a chip, small enough to sit in the palm of your hand, to which a number of input and output devices are attached. This chip is the central processing unit (CPU). If your system is new, the chip is probably an 80286 or an 80386 or, if you're lucky, an 80486. If you're making do with a hand-me-down, you may have all 8088 or 8086. These numbers are the name of your CPU which sits on the motherboard inside the main box.

The CPU, Input & Output

The central processing unit is, unlike some parts of your computer, aptly named: it is central to the whole system and processes information. It receives information and once it has processed it, it has to give the information back to you otherwise there's no point to the whole operation. Getting the information to the CPU is done with your input devices and the CPU sends it back to you with your output devices. There are also some devices which can do both input and output.

Input devices	Output devices	Input & Output Devices
keyboard	monitor	disk drive
mouse	printer	modem
scanner		touch screen
light pen		
graphics tablet		

Information as Electrical Signals

The CPU processes information in the form of electrical signals. When your system is on, there are signals running along lines on circuit boards, then along wires which attach these boards to connectors which attach to cables which attach to devices such as your keyboard, monitor and printer--something like the knee bone's connected to the shin bone.

Making the Right Connections

Connecting the cables of a computer is no more demanding than those toys which require you to put the same-shaped block into its matching hole. Each socket is different in shape, has pins or pin holes in either a female- or male-orientation (I trust you know the difference) and transmits signals either serially or in parallel mode. The keyboard cable ends in a small round plug which has its own easily-identifiable socket. The monitor is connected via cable to a graphics card in the main box and is also plugged into the main box or directly to an electrical outlet for its power.

Controllers, Interfaces and Ports

The majority of the other devices listed in the above table must be plugged through a cable to their own card which, in turn, is pin-connected into the motherboard. These cards may be called controllers, interfaces, ports or adapters. Some of these cards can run a combination of devices. For example, the disk controller will send information back and forth to hard and floppy drives. Hard-drive, extra RAM memory/graphic and fax/modem cards are also available.

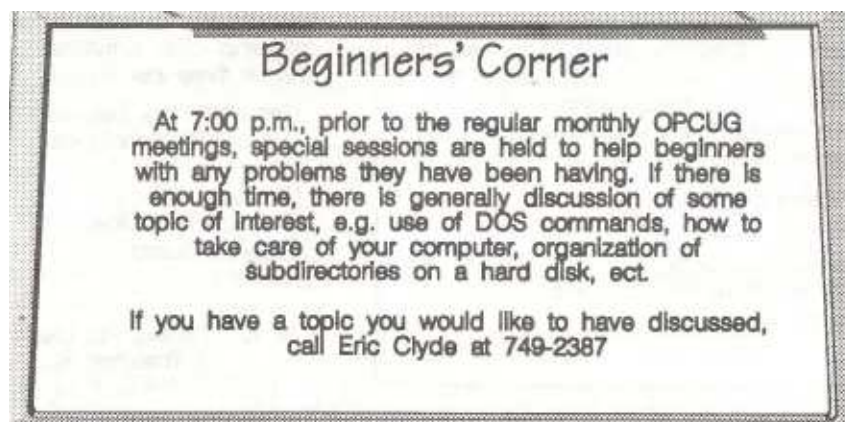
Your printer, whether laser or dot matrix, will be connected most often via a parallel cable to a female socket. The monitor is connected to a graphics card.

Loose Connections are a Common Problem

The most common problem with both devices are loose connections. Always check your cables first when troubleshooting these devices and always connect cables with the power off. Experienced and amateur users get caught time and time again forgetting to check the most obvious.

Next month: Booting up

In next month's column, we will talk about the "boot-up" process the computer system and the storage of information in files and directories. If you can't wait that long, go ahead and press the ON button.



Ottawa PC News

Ottawa PC News is the newsletter of the Ottawa PC Users' Group (OPCUG), and is published monthly except in July and December

Deadline The deadline for submissions is the last day of the month prior to publication.

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Group Meetings OPCUG meets monthly except in July and December. Check the answering machine, the PUB and the newsletter for the date and place of each meeting. Meeting times are 8:00 p.m. to 10 p.m. Beginners' sessions are from 7:00 p.m. to 8:00 p.m.

Membership fees

\$25 p.a.
 Disk-of-the-Month \$25 for 5.25 ins. diskettes and \$35 p.a. for 3.5 ins. (for 10 diskettes)

Did you hear the one about ...?

Bill Gates dies and meets Saint Peter at the Pearly Gates. Saint Peter offers him a choice between two doors marked Heaven and Hell.

First Bill opens the door to Heaven and sees a beautiful, serene place with angels playing harps and happy people floating on fluffy white clouds.

Then he opens the door to Hell and is surprised to see people laughing, talking, singing, and generally having a great time: he chooses this door. Saint Peter smiles and sends him on his way.

As Bill approaches the door, smoke starts to seep out from underneath. He grabs the door handle and finds it uncomfortably hot. Then he opens the door and sees nothing but fire and brimstone.

He turns in shock to Saint Peter and asks incredulously, "What happened to the great stuff I saw?"

Saint Peter replies, "Oh that. Good demo, eh?"

MEMBERSHIP APPLICATION/RENEWAL				Membership # <small>(if you are renewing)</small>
First name		Last name (please use caps.)		
Address			Apt. #	
City	Province	Postal Code	Country	
()	()	()	()	
Home phone #	Business phone #	Fax #		
I use the following hardware: <input type="checkbox"/> XT <input type="checkbox"/> AT-286 <input type="checkbox"/> 386 <input type="checkbox"/> 486 (Check those that apply.) <input type="checkbox"/> 300 baud modem <input type="checkbox"/> 1200 baud modem <input type="checkbox"/> VGA <input type="checkbox"/> EGA <input type="checkbox"/> Herc. <input type="checkbox"/> 2400 baud modem <input type="checkbox"/> 9600 baud modem				
I would like to help in the following club activities: (Check those that apply.)			I use the following software:	
<input type="checkbox"/> Programming Instruction <input type="checkbox"/> Hardware techniques <input type="checkbox"/> Newsletter Input <input type="checkbox"/> Software library <input type="checkbox"/> Promotion/Publicity <input type="checkbox"/> Bulletin Board <input type="checkbox"/> Other			MEMBERSHIP FEE \$ 25.00	
			Disk of the month subscription _____ (\$25/yr. for 5.25" or \$35/yr. for 3.5" 10 disks per year)	
			Cheque <input type="checkbox"/> Cash <input type="checkbox"/> TOTAL \$ _____	

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