FROM THE PRESIDENT'S DESK
by Phil Janz

"Variety," "Stability" and "Growth" are all healthy aspects of our March meeting!

We so often become familiar with only one writing program, limiting ourself or denying others in the family the opportunity to explore and expand. . . A "smorgasbord" of writing programs will be briefly presented at the meeting this month in order to capture program strengths, weaknesses, usability and versatility. During this demonstration Christine Brown will present Bank Street Writer; Jack Hart, PC-Write; Dick Page, PFS Professional Write and Louie Levy, WordPerfect. As Writing Assistant was covered by a November workshop, this "offers up" a variety of five programs for your consideration.

An extensive Club By-Laws revision was reviewed during the February meeting. Action will be taken during this meeting for additional suggested changes or acceptance as presented. Keeping our operating document current so that it reflects our present goals and operating practices assures continuing continuity, direction and stability for both the Club and its leadership.

Our final Club workshop for this year, DOS/AUTOEXC.BAT, will receive an overview from instructor Frank Ratti. This is the sixth "hands on" Club Workshop made available this year and the 21 Club members who participated in the first five workshops were excited, eager and enthused about what they learned and the personal growth that came with personalized instruction on how to get "jr" up and running and then finding themselves able to tailor a new program to meet their needs!

Come and join us at Ida Patterson School library. . .The Club Disk Library opens for business at 6:45 p.m. while the meeting begins at 7:00 p.m. The Ratti family will bring a treat guaranteed to make your mouth water for our break midway through the meeting and "keeping it in the family," Simon Ratti will demonstrate a neat game disk, ARCADE GAMES II, that will interest both kids and adults.

DOS Version Chart

PC-DOS VERSION	MEMORY USED	MS-DOS VERSION	RELEASED TO SUPPORT	OTHER SUPPORTED FEATURES	DESIGNED FOR IBM MODEL
1.0	10,240	–	Full-height single-sided 160K floppy disk drive	Original IBM operating system	PC-1
1.1	12,400	1.25	Full-height double-sided 320K floppy disk drive	Directory entries include time of day (only PC-DOS had DISKCOPY and DISKCOMP	PC-2
2.0	2...	...	...hard drive ...chial file system, ...single-...d and 360K ...le-sided ...x drives	File handles, print spooling, installable device drivers, piping and redirection (¦, <, >, >>), disk labeling, improved batch file language	XT
				Some International support	
2.1			...alf-height ...loppy disk ...drives	ROM cartridges, other PCjr support, no international support	PCjr
				Combines 2.01 and 2.1	
3.0			20MB hard drive 2K clusters, 1.2MB floppy disk drives	Extended memory RAM disk, CMOS clock support, allows path prefix for commands	AT
3.1	38,960	3.1		PC LAN support	
3.2	46,000	3.2	3.5-inch 720K disk drive	Token-Ring LAN support, XCOPY, ability to set environment size	PC Convertible
3.3	54,992	3.3	3.5-inch 1.44MB disk drive, multiple 32MB hard disk partitions	@ prefix suppresses display of batch command, IBM disk cache	PS/2 Models 30, 50 and 80
–	56,224	3.31 (Compaq)	Larger than 32MB partitions		
–		4.0 Europe only		Some network support	
4.0	65,424		2GB disk partitions	EMS 4.0 expanded memory support, DOS shell	
4.01	68,608	4.01		Bugs fixed	

Based on a table in the November 1990 *PC WORLD*

Every once in a while someone goes to the trouble to create a chart so
those of us who can't seem to get things straight can have a better view of
confusing matters. Here is just such a chart. We appreciate the guys at
PC World for publishing the original chart which we have modified somewhat
here for better understanding by Junior owners.

The Workshop for March is on DOS and
AUTOEXEC.BAT files. We begin this issue
with this in-depth article by Dick Page.

Disk Operating System (DOS) WHAT IS IT??
by Dick Page

Some computers are made with all the
programs you can use built into them.
Some are designed to only use programs in
cartridges which are plugged into the
computer. Most Personal Computers (PCs
for short), especially the IBM PC (and PS)
family of computers, are intended to be
more flexible, more adaptive. In order
for that to be true, the computer needs
more than just a set of built-in or plug-
in operating instructions (programs). It
needs the capability of writing down and
reading the information made during the
use of the computer so that that infor-
mation can be retrieved, altered, copied,
or several other related tasks. How does
the IBM PC family (as opposed to the IBM
"Main Frame" family) do that? -- By
reading from and writing to a 5 1/4 inch
magnetic diskette (often called a "floppy
disk") using a device called a "disk
drive."

In order for the computer to know how
and when to send and receive information
to and from the disk drive, a set of
instructions and a common language must
exist between the computer and the disk
drive. We call this set of instructions
"D.O.S.," short for Disk Operating System.

WHY WE USUALLY START UP OUR jrs WITH THE
D.O.S. DISKETTE:
The main role of D.O.S. is to super-
vise the running of our Personal Computer,
to allow it to be as flexible as possible.
It relieves the rest of our programs--and
us--from many tiresome chores. It takes
care of a lot of behind-the-scenes details
that are necessary to keep the computer
running smoothly, but which are mostly
hidden from our eyes.

This "setup" of the computer takes
place when the machine is first turned on.
The PCjr has enough information built into
it so that when it is turned on it looks
to see if the lever is turned on the disk
drive. If it is "on" (in the down
position) and has a diskette in place, it
tries to start up the disk drive to look
for instructions on the diskette for how

to proceed to talk with and use the disk
drive.

This first information is stored on
two "hidden files"--ones that aren't
listed when we list all the files on our
D.O.S. disk (with the DIR command). These
files, IBMBIO.COM and IBMDOS.COM, are
hidden so that they can't be altered or
destroyed. The PCjr won't use the disk
drive without these two startup programs
intact.

Once the PCjr has "read" these files,
it looks for a third file called
COMMAND.COM. As the name implies,
COMMAND.COM contains programs of commands
we can give the PCjr which jr will duti-
fully carry out whenever we "give the
command." These programs are automa-
tically transferred into the PCjr's
computer memory as jr is started up and
are therefore often referred to as
"Internal Commands."

The D.O.S. disk contains many other
files besides IBMBIO.COM, IBMDOS.COM and
COMMAND.COM. The majority of these files
are programs to allow us to give the PCjr
other commands, often referred to as
"External Commands"--because we have to
ask for them to be read from the D.O.S.
diskette into jr's memory each time we
want to use them. They therefore are not
kept in PCjr's internal memory, but are
"external" to it. The D.O.S. Supplemental
Programs diskette also contains some
sample programs written in BASIC program
language--programs showing tasks you can
perform on your jr.

THE THREE MAIN USES FOR D.O.S.:
We can separate the functions of
D.O.S. into the three main catagories:
(1) accepting our commands, (2) running
our programs, and (3) managing our
diskettes.

(1) Accepting Our Commands
When the PCjr is started with D.O.S.
installed in memory, D.O.S. takes on the
job of asking us, "What do you want jr to
do?" and then it responds by doing what we
tell it. This works very simply. When
D.O.S. is ready to accept a command from
us, it gives us its COMMAND PROMPT, "A>".

A command to D.O.S. is the name of
something that we can ask D.O.S. to do for
us. In actuality, D.O.S. is asking us to
give it the name of some program we want
it to start up for us.

(2) Running Our Programs

In computer-talk, starting a program is called executing it, or running it. So, when we type in a command for D.O.S. (such as FORMAT), we're really asking D.O.S. to run a program with that name (FORMAT.COM).

As long as that program is running, it is more or less in charge of the computer. Most well-written programs have built into them a way to stop the program from being in charge and help you return control back to D.O.S. Sometimes they don't. Whenever they don't, your job is a bit harder because you then need to know how to get back to D.O.S., or you have to turn off the jr and start it up all over again.

The BASIC program is a good example of this process. At the A>, typing the word BASIC changes the control of the computer over to the BASIC program stored in your BASIC cartridge. When you want to exit BASIC and return control to D.O.S., you type SYSTEM after BASIC's " OK " prompt, and A> will again appear.

(3) Managing Our Diskettes

The third of the three main jobs D.O.S. does for us is managing our diskettes. Our diskettes are like filing cabinets or storage drawers that are available to our old friend, the handyperson (handyman). When we use the analogy of the computer as a handyperson and the memory as a workbench, we can think of diskettes as being like a toolbox that we can bring to the handyperson.

We can have many different diskettes, and so we can present many different "toolboxes" to the computer. Each diskette can have stored on it its own collection of programs--tools for the handyperson. When we place one diskette into the computer's diskette drive, any programs on that diskette become program commands that D.O.S. can carry out for us. If we take the diskette out, then D.O.S. can't use those command programs--those tools aren't available to our handyperson.

Toolboxes can be quite orderly, or they can be a jumbled mess. It's the same with diskettes. One of D.O.S.'s main jobs is keeping our diskettes orderly and supervising our use of the storage space that is on each diskette. D.O.S. not only lets our computer read programs and other information off our diskettes, D.O.S. also lets us write, or store, information on each diskette. Naturally, for everything to run smoothly, we need to be sure that all the programs and data stored on each diskette aren't jumbled together; that

each item on the diskette has a name so we can identify it; and that we don't run out of room on the diskette. All these tasks, and more, are part of the diskette management function supervised by D.O.S.

THE THREE USES OF DISKETTES:

There are three ways we can use diskettes. First, we use them to start up D.O.S. itself. To do this, we need to have what is called a "D.O.S. system-formatted diskette." That is a diskette which at least contains the two D.O.S. startup programs mentioned earlier, IBMBIO.COM and IBMDOS.COM, and often the third startup program, COMMAND.COM. Second, we use diskettes to load programs into the computer so D.O.S. can find and execute them. Third, we use diskettes to hold any information, or data, our programs work with or generate.

We can, if we need to, use different diskettes for each of these three functions, and often we have to. (Lots of "disk swapping.") That can be rather inconvenient. Most well-designed commercial software programs save room on their diskettes for you to install the particular D.O.S. startup programs which work well with the specific computer you have (D.O.S. version 2.1 for the PCjr). If the software also needs to store or write information to the diskette, it should have space on the diskette set aside for that purpose or tell you when to swap diskettes so that the information gets written to a "save diskette."

FIVE KINDS OF FILES USED WITH D.O.S.:

There are five kinds of files that we have available to use: (1) Batch, (2) Command, (3) Executable, (4) Text, (5) Data, and (6) BASIC.

(1) Batch [.BAT], (2) Command [.COM], and (3) Executable [.EXE]:

The first three are names for specific D.O.S. command programs. They are identified by the fact that they have very specific extensions to their filenames which should not be used by any other type of program. They are: .BAT (for BATch commands), .COM (for COMmand commands), and .EXE (for EXEcutable commands). From a practical point of view, these three types are nearly the same. We can key-in any of their filenames (without having to include the period and three-letter extension), as the name of a command, and D.O.S. will find the command and execute

it. (Note: They DO have important dif-
ferences which you will want to learn
about if you want to make the most of your
PCjr.)

(4) Text and (5) Data Files:
Text and Data files are storage files
for saving the obvious --> text (from a
word processor) and data (from a spread-
sheet, game score totals, database, etc.).
These can have any number of extension
name variations--many of which are fun to
create. The choice is often up to you.
However, these files usually do require
that you include their extensions as well
as filenames when using them. These pro-
grams usually can not be run directly in
D.O.S. but must instead, be used in con-
junction with commercial software programs
or with D.O.S. command programs.

(6) B.A.S.I.C. [.BAS] Files:
Our diskettes might also hold
B.A.S.I.C. programs. First, before we can
use any BASIC program, we must have BASIC
ready on the computer. This usually means
we must have the BASIC cartridge plugged
into the PCjr's system unit. (A few pro-
grams can run on the simple BASIC built
into PCjrs.)
Most BASIC programs have the exten-
sion .BAS (short for BASic). We can ask
D.O.S. to run them, but you must type the
word BASIC before typing the filename of
the program. For example, there's a BASIC
program file named SAMPLES.BAS which comes
with D.O.S. on the Supplemental Programs
diskette. To run the SAMPLES program from
D.O.S., you key in the command BASIC, fol-
lowed by the filename of the BASIC pro-
gram, like this: BASIC SAMPLES. This
two-word command works in two steps:
first, it instructs D.O.S. to start run-
ning the BASIC language; second, it tells
BASIC to find and run the program named
SAMPLES.BAS. (BASIC has its own set of
rules which are good to learn--but that's
for another summary sheet, not this one!)

A FEW LAST COMMENTS:
There are a few things to keep in
mind when working with D.O.S. (Really,
there are lots of things to keep in mind,
but here are a few of the most essential
not emphasized elsewhere.):

CAPITAL vs lower case LETTERS:
In most books, including the D.O.S.
manual itself, commands are usually shown
in capital letters to help make the
commands stand out in the text. But
actually, we usually type commands in

lowercase, since that is more convenient.
Don't worry that you have to type things
carefully in capital letters. Do worry
that what you type in is accurate. If you
aren't careful, you many ruin your work or
else get chided by D.O.S. with the
complaint: BAD COMMAND OR FILE NAME

"QUOTES" vs NO QUOTES:
There can be some confusion using
D.O.S. for people who also use BASIC
programs. This is because the rules for
each are in many ways the same, in many
ways similar, and in many ways very
different.
One of the biggest areas of apparent
confusion is that when you are typing in
filenames, quotes are required by BASIC,
but not D.O.S. Don't use quotation marks
with D.O.S.!

HELPFUL REFERENCES:
Some of the above information was
extracted from Peter Norton's (of Norton's
Utilities software program fame) book,
"Discovering the IBM PC/Jr Home Computer,"
published by Microsoft Press. It and its
companion book, "Exploring the IBM PC/Jr
Home Computer," are excellent reference
books for the PCjr owner.
A more in-depth look at D.O.S. can be
found in the book "Running MS DOS" (Second
Edition), written by Van Wolverton and
also published by Microsoft Press.

TAKE TIME TO LEARN ABOUT D.O.S. AND GET
MORE ENJOYMENT FROM jr! OTHER HELPFUL
HINTS (This is an elaboration of the
information from the D.O.S. 2.1 manual,
pages 1-16 through 1-27.)

SOURCES OF HELPFUL INFORMATION:
1) Eugene IBM PCjr Club (We're here to
   give each other support!)
2) Published Books (esp. your D.O.S.
   manual--review it periodically!)
3) Diskette Tutorial Programs (ATI
   programs are good).
4) Local Computer Outlet Store Classes
   (but not most salespeople!)
5) LCC and U of O (talk to Jim Cox)
6) Private Tutors (some advertise in the
   Register Guard)
7) "On Line" Help Screen Programs

FILENAMES & EXTENSIONS:
The filename can be made up of up to
eight letters (just like the name "file-
name" has only eight letters).
The extension starts with a period
and has a maximum of up to three letters.

The filename and extension can be made up of any combination of the following letters and symbols:

    A through Z
    0 through 9
    ! @ # $ % & - _ { } / \ ( ) ' ` ~ ^

Do not use the following as filenames or extensions:

    CON, AUX, COM1, COM2, LPT1, LPT2, LPT3, PRN, NUL

In instructions and manuals, the word "FILESPEC" refers to the fact that they want you to use a specific filename.

Use any combination of letters and symbols which will quickly and easily help you identify your file. Using the same extension for similar kinds of files helps you to group them together for easy retrieval (ie: listing all your LeTteRs with the extension symbol ".LTR" or dating your file from SEPtember 1985 with ".SEP" or ".85"). The following file extensions are frequently used to identify specific kinds of files:

.BAK	BAcKup files
.BAS	BASic programs
.BAT	BATch files
.COM	COMmand programs
.DAT	DATa files
.DOC	DOCumentary (or
.INS	for INStructions) files
.EXE	EXEcutable programs
.LST	File containing LiSTs
.NEW	NEW files (vs
.OLD	for OLD files)
.LTR	Files of LeTteRs (or
.COR	for CORrespondence)
.SYS	Operating SYStems programs
.TMP	TeMPorary files
.TST	TeST programs
.WRK	WoRKing files

GLOBAL OR WILDCARD CHARACTERS:

Global Characters,also called "Wildcard Characters," are used for special purposes when naming groups of filenames. There are two Global Characters: " * " and " ? "

The asterisk (*) denotes the substitution of any character or characters found following its position in a filename or extension (only up to the period after the filename when used with a filename that has an extension). Here are some examples:

    .   denotes all files on the disk.
    *.BAS denotes all files with an extension of ".BAS" (like when you want to copy onto another disk all the BASIC programs, but nothing else).

TEST*.UO denotes all files with the name "TEST" in the first four positions of the filename (ie: TEST1.UO, TEST2.UO, TEST-A.UO, TEST-B.UO, TESTFILE.UO, etc.).

TEST*.T* denotes any file as in the above example but also having a "T" in the first position of the extension (ie: TEST1.TMP, TEST1.TST, TEST2.TOP, TEST-85.TUE, TEST4.THR, but not TEST1.LST or TESKIP.TMP).

The question mark (?) character is used to substitute for just one character in the filename or extension. Here are some examples:

    TEST?.UO   denotes a filename with one variable character in the group of files (ie:TEST1.UO, TESTA.UO, etc.).
    TEST-?B.T?P denotes one variable character in the filename and one variable character in the extension (ie: TEST-AB.TOP, TEST-1B.TMP, etc.).

The Wildcard Characters are often used when you want to use the following commands:

COPY   COPY *.* B: Copy all files on the disk in drive A to the disk in drive B (with out erasing the files already on the disk in drive B).

DIR   DIR *.BAS   List all the names of the files on the disk which have the extension ".BAS" (all BASIC programs).

ERASE ERASE MYFILE.*   Erase all files named "MYFILE" no matter what the extension is. (If only one file is named "MYFILE" with a three letter extension--such as MYFILE.LST-- typing it with an asterisk saves you two key strokes.)

RENAME REN B: HARDWARE *.LET   This renames the file "HARDWARE" (which has no extension) on the disk in Drive B so that it has an extension "LET". (Again, this saves you several strokes. You don't have to type "HARDWARE" a second time-- RENAME B:HARDWARE HARDWARE.LET.)

Ed's Note: This article has been somewhat longer than most of the articles we usually use in the Newsletter, but we thought it was very approprate for this issue. If you got lost reading Dick's article, you need help with DOS. Sign-up for the March workshop now by calling Phil Janz (343-1059).

Need Help??

If you need help with any software, call one of these members for help:

BASIC or WordStar: Paul Bonny - 344-1501
WordPerfect or
PC-FILE III: Louie Levy - 343-7592
Writing Assistant or
Managing Your Money:
                    Ginny Dobson - 935-3863
Sierra Games: Dennis Lutwen - 874-2608
                    Cindy Page - 342-3193
Harvard Graphics or Electric Desk:
                    Joel Brodsky - 342-6113
Hardware Problems: Dick Page - 342-3193
PC-File + or 5.0:   Dick Page - 342-3193
PC-Write: Jack Hart - 686-0794
Lotus: Frank Ratti - 747-8315

LOCAL MEMBER'S ARTICLE IS PUBLISHED IN NATIONAL NEWSLETTER

Congratulations to Cindy Hoffman for her recent article published in the *jr Newsletter*. It's always nice to see members' articles and letters being published in other newsletters; especially national newsletters. If you missed Cindy's article in the November issue, you should be a subscriber of the *jr Newsletter*. Send your check for $20 to *jr Newsletter*, Box 163, Southbury, CT 06488 for a one year subscription. Both you and your Junior will be glad you did!

ELECTIONS SOON. . .

It isn't too early to say that April 11th is election evening at the Eugene PCjr Club. If our new By-Laws are approved at the March meeting the task of electing officers will be much simplified.

At the last Board meeting, Phil Janz appointed Juanita Hampton and Louie Levy to act as the Nominating Committee for the April elections. They have already had their first meeting and are in process of finding folks to serve the club. If you have any suggestions or would like to serve your club, give Juanita (726-0139) or Louie (343-7592) a call. In order to nominate someone, you should contact that person and get their approval prior to nominating them.
Don't hesitate to call them on the phone and ask if they will serve the club.

Help Needed!

Are you "conversant" in PC-CALC? How about giving a little bit of your time and knowledge to the Lane County Chapter of the American Diabetes Association! Give Al Burns a call at 344-0332 between 8 and 1 if you can help him get his spread sheets to print in 12 cpi without double-spacing. The program does well in condensed print, but not in "normal."

WHAT DID JUNIOR DO THIS MONTH?

If we get enough response we would like to start a "What Did Your Junior Do This Month?" column. So, call us or drop us a line. We'll keep it anonymous unless you tell us otherwise. Maybe your uses of Junior will give another an idea; remember that a Junior in use is a happy Junior. So, here are some things that I know Juniors did this month:

Using PC-FILE, a Junior databased "interest" levels of many churches in the Lane County area for a future Billy Graham crusade. The database was "exported" into WordPerfect format and reports were mailed to local churches and to the BGC in Carolina.
Using Writing Assistant, a newsletter was produced for folks who own cabins on Forest Service land.
Print Shop produced sign-up sheets to "Help Feed the Homeless" at the Saint Alice Church's Soup Kitchen.
PC-FILE printed mailing labels for two clubs (91 for one and 40 for another).
Two Congressmen got letters produced with Writing Assistant.
Print Shop produced a birthday card for a daughter-in-law.
A VCR was purchased after a comparison was done using WordPerfect.

What did YOU use your Junior for this past month? Drop us a line and let us know. And this newsletter is produced on a Junior—but you knew that.

FOR SALE...

640k JUNIOR for sale. Complete Junior Hotshot model with PCjr Color Display, Big Blue printer, joy stick, DOS 2.1, EasyWriter word processing software, Cartridge BASIC with manual, *Hands On BASIC*, and more. $400. Gary Gossett, (503) 744-0613

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