

Re-printed from the Capital PC User Group Magazine "The Monitor" article Rich's Ramblings for April 90.

I want to report to you all on an astounding new program that Vernon Buerg from Petaluma California has just announced. (Vern and wife Julie really do live in Petaluma?).

Vern is the famous author of many shareware and public domain programs that are so indispensable from the very first time you use them. The most famous is LIST, which is so well known as everyone's instant replacement for the DOS TYPE command.

LIST will allow you to view ANY file in Hexadecimal, or ASCII, this way you can look at any file on your disk, checking it for text strings and looking at mega-mega byte files instead of trying to bring them into an editor. You can mark blocks of text and write out the marked block to another file or to the printer. Look at files by wild cards, for example, view all .DOC files and do string searches on all these documents one at a time. It is probably the single most well-used shareware program that I know of. Well, enough hype for Vern and LIST.

The meat of this is to let you all know that Vern has come up with a new file compression technique using the latest in the OOPS, Assembly and artificial intelligence languages. Vern demonstrated its unique new features in his latest entry into the archive program arena at the annual meeting of shareware and public domain authors which was held at San Francisco, California last January. I received a special invitation as one of the older sysop's and Capital PC's software librarian.

All of us attenders were astounded at the uniqueness and the simplicity of his new program. Of course there were other authors in attendance that were seriously concerned that it would dry up the market for their compression programs; ARC and PKZIP might soon be obsolete and the authors would have to go back to the drawing boards.

Vern announced the product with an air of mystery that Apple, IBM and COMPAQ would have been proud of. He was on the stage of the San Francisco Cow Palace with the auditorium mostly dark, a single spotlight on the podium. With a trumpet blast, suddenly the curtains in back of the stage parted and a projection screen appeared, the computer DOS prompt C:\> was the only thing showing. Vern then typed DIR and a short directory listing showed up. The listing showed not much new except there were several files having 0 bytes for their sizes. There was of course much tittering and many thought that Vern had finally written one too many lines of Assembly or Basic source code. He of course was his usually calm self. Julie, his better half and co-SYSOP of their multi line BBS system, was sitting in the front row with a large smile on her face.

I had a little forewarning of the scope of his announcement when I had attended COMDEX in November with Bob Blacher, a famous SYSOP in the DC area. Back in November, Vern gave us some hint of what he was working on and what to expect. Vern then started to describe what we were looking at.

The directory listing was the key to his new program. Vern had invented a compression algorithm that took over 1,350,000 lines of assembly language source code to program. The US copyright office had issued him a patent on the algorithm just this past week.

The formula is so efficient that it can compress any file down to just a few bytes and store them as characters in the filename on the directory of the disk. As an example it had compressed the Remote Bulletin Board documentation which is over 600Kbytes of text, down to an 8 byte file name.

This new and revolutionary program, is named **GREB**, is a 25 Kbyte .COM file that is the compressor and de-compressor all rolled into one. It operates within 256 Kbytes on most any machine. He even has a UNIX version (sorry only AT&T version 3.4 v II at present) that is faster. There were representatives from Seagate Miniscribe and CORE (hard disk manufacturers) in the audience who appeared quite upset. After all, how could they sell hard disks if this compression technique would reduce requirements for huge amounts

of disk space?

One of the really slick things about **GREB** is that it can be used on the DOS command line to un-compress and run any applications program. **GREB** can then be made TSR (Terminate & Stay Resident) so that any of the applications programs that were un-greb'd that need their data files would have instant access to these files via **GREB**.

The IBM representative started asking questions about whether it was transportable to a mainframe environment. Vern said that he had just completed the Digital VAX vms version and was about to go into Beta testing on the IBM MVS environment. If IBM wanted to be a beta tester, then please see him after the meeting.

Vern then proceeded to answer questions and there were lots of them, of course one of the first was "How did you do it?" Well, Vern in his unique tone of voice answered, well I was a tweaking (as all programmers do) LIST and ARCE (a quick and dirty archive extractor for .ARC files) and decided to look at some of the compression algorithms like Ziv-Lempel-Welch, Shannon-Fano tree and the most famous Dysrally functions of the highly regarded Dr. J. Dysrally, a professor at Prairie View university in Houston Texas who started this all with his 8 bit reverse NOP-JNZ encoding techniques.

Vern went on to attempt to explain his new algorithm. There was a clattering of keys that indicated that there were lots of laptops in attendance copying this exciting news all down for posterity. Some of the 4th estate even ran for the phones. Vern then displayed the speed of **GREB** and how reliable it was. He executed **GREB** against a filename on the directory called CONSTUTN.876. Within seconds on the screen zipped past the complete constitution of the US and was finished. He said that he could have written the file to disk but the screen is the default, this way we could see GREB's super speed.

After this quick demonstration there was tremendous applause which quite took a while to die down. Here were his peers giving him the ultimate respect he well deserved and never received for LIST and ARCE. Julie joined him on the stage and basked in his limelight. She was proud of her man and spoke a few words about all the midnight oil and cartons of cigarettes they burnt up. It was all worth this moment. Vern then spent the next few minutes answering questions and taking the congratulations of the attenders.

The IBM representative and the DEC person each tried to get him aside to offer him a fellowship at their research facilities but he put them both off until he had conferred with his wife.

Next on the agenda, Egghead software announced that they had signed an exclusive distribution agreement with Vern and the product will be available in their stores soon. This product unlike the old familiar 275 mile per gallon gas engine, will actually see the light of day. Vern, it appears was quite smart and signed exclusive distribution agreements with Egghead software before announcing it. This way no one could offer him money to not market the product as the hard disk manufacturers might try to do. Vern then told us that his Macintosh version was in beta test and because of the special file naming conventions of the Apple Macintosh Operating system, **GREB** will give much more latitude in file names which will then allow him to support the data files **GREB**'ed into the file name with the applications software. It was a real enjoyable and rewarding trip to San Francisco having finally gotten to meet Vern's wife Julie after having chatted with her so many times on her's and Vern's BBS.

Next month I will have more on this new technique and the reactions from other compression program authors. This is really no Egg-zaggeration.....

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