user may select exact geographic locations by inputing the longitude and latitude coordinates of the desired site. The resulting output is displayed in a three-dimensional format, allowing visual inspection of the dispersion rate and concentrations of the chemical over the geographic region and/or population of interest.

RISKTAB enables the user to generate tables of risk, dose, and hazard index estimates for single or multiple exposure pathways using the data from the model results. These estimates can therefore be made for very specific populations, generally the population within the modeled locale. For example, the predicted concentration of a chemical in a river (output from EXAMS-II) could be used to estimate the hazards and risks associated with drinking surface water from the river of interest. RISKTAB generates data using methods from the EPA document *Risk Assessment Guidance for Superfund*, Volume 1: Human Health Evaluation Manual (Part A). Three types of tables may be created by the RISKTAB option: carcinogenic risk estimations, chronic hazard index estimates, and subchronic hazard index estimates. All data produced in these tables are averaged over the entire period of model simulation. As with the chemical estimation programs, users are given the option of entering their own data (either partially or completely) or not accessing any model data.

SUMMARY

RISKPRO is a collection of software used by exposure assessment professionals that allows the user to estimate physicochemical properties of a chemical, model the fate of that chemical in air, soil, and water, and then visualize these results without leaving the user-friendly environment of RISKPRO. It therefore offers modelers an environment where exposure assessments can be conducted with very little file handling and minimal knowledge of computers.

We would especially recommended RISKPRO to the novice modeler who has some knowledge of environmental chemistry. For the experienced modeler, RISKPRO offers the convenience of reduced file handling, time savings, and untroubled visualization of model output.

Printer Fonts: Bitstream Facelift and HP Type Director 2.0

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Received June 4, 1991

While laser printers are becoming quite common as the printer of choice for most offices and laboratories, the version that is usually purchased is generally a rather stripped down machine compared to its actual potential. Stripped down basic printers often have only 512K of memory, which is not sufficient to take advantage of their ability to print out complicated graphics like a chemical structure. Printing out a full page of graphics often requires 2–3 Mbytes of memory, which can easily add $500 to the cost of a laser printer. In addition, most of the basic models of laser printers lack the built-in capability to print out character sets in different sizes and styles. This review discusses two of the more popular and well-known software packages that provide for the ability to create more professional-looking documents and thus overcome the second problem. Both software packages can run on 512K of (printer) memory, but this may prove to be too little in some instances. The packages are the Bitstream Facelift and Hewlett-Packard (HP) Type Director, Version 2.0.

Both packages perform the same basic tasks. They both allow one to create different styles of type (typefaces) in different fonts (typesizes). The main difference between the two is that the HP Type Director typefaces are loaded and saved on your hard disk, while the Bitstream Facelife typefaces are, for the most part, created on the fly as you go to print your document. This means in general that, for the same typefaces, the Bitstream system takes up less space on your hard disk, but takes a little longer to actually print out. Bitstream also makes a Fontware software package which is similar to the HP Type Director system in that it does not use the Facelift font scaling technology.

Installation of the packages was both simple and straightforward. I installed the software on Compaq, IBM, Epson, and TI computers with HP and Epson laser printers. The software I used for testing both software packages was WordPerfect, Version 5.1. Both instruction manuals are clear and easy to understand. Both companies provide hotlines for help. The HP line is open 11 hours a day, Monday through Friday. The Bitstream hotline is open 10 hours a day, Monday through Friday, and offers a FAX hotline (617-497-7514), primarily for non-USA users. I tried both and was pleased with the speed I was able to get help, and more importantly, the quality of the help. The HP hot line (208-323-2551) is not toll free, while the Bitstream hot line is (800-522-FONT). Type Director with WordPerfect supports font sizes (the physical size of the character being printed) from 4 to 200 points. The Bitstream Facelift package defaults to supporting font sizes from 1 to 32, but can be changed to range up to a point size of 999.

The only problem I encountered was with the Bitstream package. In the version I have, dated 10/04/90, there is a bug, which has yet to be fixed. When I used the software with WordPerfect on a Compaq 386 and HP LaserJet II printer, the printout came out in an odd way, and actually printed out the wrong characters. Every letter and number in the output is increased by one. Thus "chemistry" comes out "difnjtusz" and "^{13}C NMR" comes out "^{24}D ONS". Whenever this happens, and it did occur regularly, I followed the suggestion in the 12/90 supplement to the manual, which suggests either turning off the printer and turning it back on or exiting WordPerfect, and restarting WordPerfect by typing flwp (the facelift modification to WordPerfect). The latter worked every time I need to do it. Since I first wrote this review, I upgraded my computer system to an AST 486/33 and an HP LaserJet III printer. The bug which occurred often in my old system has never yet appeared in the new system.

The HP Type Director fonts included in the basic Premier Collection package consists of eight typefaces from two of the most popular typeface families: Univers and CG Times. Included in the CG Times typeface are regular, bold, italic and bold italic. The Univers typeface includes medium, medium italic, bold, and bold italic. The other typefaces included on the third disk, called Decorative 1, include the typefaces: Brush, Dom Casual, Park Avenue, and Unical. HP sells many other typefaces.

The Bitstream Facelift Companion Value Pack kit includes the following fonts: Amerigo (Roman, italic, bold, and bold italic), Charter (Roman, italic, black (like bold), and black italic), Century Schoolbook (Roman, italic, bold, and bold italic), Futura Light (light, light italic, medium condensed, and extra black), Swiss compressed, Swiss extra compressed, Exotic demi-bold, and Exotic bold. Bitstream also sells lots of other fonts.

For both packages I can safely say that after looking at a few different fonts and trying a few different point sizes one can quickly forget what you were printing and why you were printing it in the first place. The variety in either package exceeds most normal needs.

In summary both of these packages work well and provide considerable enhancements to the capabilities of a laser printer. I would recommend either and I keep both loaded in my system. If one had to choose between the two I would favor Bitstream slightly over HP Type Director simply because of its smaller hard-disk space requirements.

REFERENCES AND NOTES

(1) The Bitstream Facelift is available from Bitstream Inc., 215 First Street, Cambridge MA 02142-1270 (Phone: 800-522-FONT or 617-497-6222, FAX: 617-868-0784). The price for the basic Bitstream Facelift Companion Value Pack kit is $195.00. The additional fonts in the Symbols 1 package costs $195.00. There are various starter kits available for over two dozen different software packages, with price ranging from free to $95.00, with the median price being $15.00.
(2) HP Type Director 2.0 is available from Hewlett-Packard, Boise Division, P.O. Box 15, Boise, ID 83707-9334. (For the nearest dealer phone 800-752-0900). The price for Type Director, Version 2.0 Premier Collection with the basic fonts is $195.00.

The Beilstein Current Facts in Chemistry CD ROM

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Received June 1, 1991

The latest addition to the computerized activities of the Beilstein Institute is a CD-ROM product of the recent chemical literature. Called *Beilstein Current Facts in Chemistry on CD-ROM*;[1] this CD-ROM contains facts, data, and structure information abstracted from the chemical literature, beginning with January 1990. Currents Facts is to be issued quaterly and will contain data which is at least 5 months old. Each quaterly disk will contain the past 12 months' of literature data. This means the older data on the disk will be deleted as new data from the most recent 3-month period is added. It will be possible to keep one CD-ROM disk which contains a full year's data, from January to December by keeping and storing every fourth disk. It is expected that some 300 000 compounds, found from scanning the chemical literature of some 82 core journals, will be included in this database every year.

The equipment required to use the system is a IBM PC or compatible clone, MS-DOS version 3.1 or higher, with 640K of main memory. The Current Facts system is able to run in about 500 000 bytes of free memory, after the operating system, mouse and CD-ROM drivers are loaded in the computer. A variety of graphics cards, seven in all, from CGA to VGA, work with the system. A standard internal or external CD-ROM drive, with version 2.10 or higher of Microsoft MSCDEX is also needed. The CD-ROM is not available for an Apple Macintosh system, and there are no current plans to implement such a version. The system also allows one to print out search results with a wide variety of dot-matrix, laser, and color printers.

Installation of the system was simple. I installed the system on an Epson 286 computer with a SONY internal CD-ROM drive and a laser printer. The system loads directly from the CD-ROM by typing "CFINST.EXE". The automatic loading of the system does produce a little overhead on your hard disk, since, for example, all graphics drivers are loaded, not just the one you need. However, it is easy to erase the extra file from the hard disk once the installation is completed. It is that simple, and it works. The system can also be manually loaded, and use of a RAMDISK requires some small modifications. The introductory 17-page short manual is both quite short and