## **Hewlett-Packard 3000 Series**

## **Product Enhancement**

In June and July, Hewlett-Packard announced two software development tools for use on the HP 3000. A Cobol II productivity aid, HPToolset, should be a welcome addition for the estimated 75% of the installed HP 3000 base who are currently running Cobol. An interactive applications program monitor, APS/3000, is designed to identify program bottlenecks, in Cobol, Pascal, Basic, Fortran, and APL code. Also announced were an HP 3000 Business Graphics Package, including HPEasychart and HPDraw, plus some enhancements to the current Decision Support Graphics (DSG/3000) package. A new multi-function intelligent graphics terminal, the HP 2647F, completes HP's most recent announcements for the HP 3000.

HPToolset includes a workspace manager, a full-screen editor, an HP Cobol II program key, and HP Cobol II symbolic debugging. This combination eliminates the need to manage files while promoting an information sharing environment for the programmers. The workspace manager is said to manage all source files, versions of source files, INCLUDE files, USL files, and program files. Since source files may be shared, individual and team programming efforts are simplified. The full-screen editor provides direct editing of text to simplify source-code entry and modifications. The Cobol II interface program key allows the user to compile, prepare, and run programs in separate steps through a GO key. The Cobol II symbolic debug locates run-time errors through variable and paragraph names rather than primitive-level memory locations and code addresses. The programmer can set breakpoints, trace/retrace execution, and display and modify data-item values.

The APS/3000 Application Program Sampler identifies procedures consuming a large proportion of CPU time. On-line histograms display CPU time spent directly in user code or indirectly in system services. Samples may be stored onto a disk file for later analysis. The APS/3000 typically uses 2 to 3% of the available CPU time as overhead when using the default sampling rate. The sampling rate is adjustable by the user. The samples can be run on any HP terminal supported by an HP 3000 system using a current MPE IV operating system.

HPToolset is priced at \$5,000 with customer-support service at \$95 per month. APS/3000 is \$2,500 with a \$45 per month customer-support charges. All prices are U.S. list; HP OEM and volume end-user discount schedules apply.

The new HP 3000 Business Graphics Package now includes HPEasychart, HPDraw, and an enhanced Decision Support Graphics/3000 (DSG/3000). The entire package may be purchased at a discount or individual products may be purchased separately. All run on all the HP 3000 computers.

HPEasychart is designed for office users to produce quick charts. Small examples of pie charts, bar charts, line charts, or scattergrams are displayed. Up to six variables, each with as many as 70 values, may be entered. Plotting is done at the press of the Draw button.

HPDraw provides presentation text and figure design multicolor output on paper and overhead-transparency slides. Users perform high-quality visual-aid design, production, and revision through the use of menus keyed to their appropriate experience level (beginner, regular, or expert). HP Draw provides a choice of fonts, basic geometric shapes, symbols and simple figures.

The DSG/3000 Decision Support Graphics package provides chart design for more experienced users. Both computer-stored and manually entered data may be used in DSG/3000. It is especially useful for frequently updated charts when using data already in the system. DSG/3000 also provides output either on paper or overhead transparency slides.

The entire Business Graphics Software package is priced at \$10,750. HPEasychart costs \$3000; HPDraw, \$4000, and the enhanced DSG/3000 is \$6300. The Business Graphics Software package is also available in French, German, Italian, Dutch, Finnish, or Spanish.

The HP2647F is a multi-function intelligent graphics terminal which performs both as an on-line intelligent terminal or an off-line graphics workstation. The new unit is a raster-graphics terminal with 720 by 360 addressable points and an alphanumeric terminal with 24 rows of 80 characters. Programmers have 64K bytes of program workspace and Basic program control of the flexible disk, graphics and alphanumeric display, the programmable keyboard and some data communications functions. Each 5 1/3 inch mini disk holds up to 270K bytes of information, a second drive is available as an option. Mathematics, large character and line-drawing character and sets, as well as blinking, inverse-video, half-bright and underline, are standard on the HP 2647F.

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A number of applications packages enhances the HP 2647F capabilities. AUTOPLOT/47 enables users to produce pie, bar, and linear charts and text slides. WORD/47 allows users to perform text processing functions through a combination of menu and command keys. Page formatting offers automatic page breaks, footing, headings, and file merging. Included with WORD/47 is FORMS/47 to design forms for data entry or documentation. LINK/47 is a menu-driven, file-transfer program to copy both ASCII and binary files between the HP 3000 and the HP 2647F's mini disk.

The unit has a U.S. list price of \$9,950. Delivery is estimated at eight weeks after receipt of order. The optional software pacs are priced as followed:

Graphics Presentation Pac/47	\$195
Project Management Pac/47	195
Statistical Analysis Pac/47	195
Math Analysis Pac/47	195
LINK/47	195
WORD/47	295■