

# HP Decision Support Graphics/3000

Model 32250A

HP Decision Support Graphics/3000 (HP DSG/3000) is a data display system that helps you design, produce, and save business graphs drawn from numerical information kept in any data file on the computer system. The graphs can be displayed on any HP graphics terminal or a printed copy can be made on one of the HP multi-color plotters.

HP DSG/3000 is highly interactive and was designed for the periodic and one-time user. Chart design is guided by simple "fill in the blanks" menus presented in logical sequence. A "Help" facility which is built into the system, assists the user upon request. It requires little knowledge of graphics design and the non-computer professional can obtain business graphics without waiting for the development of application programs.

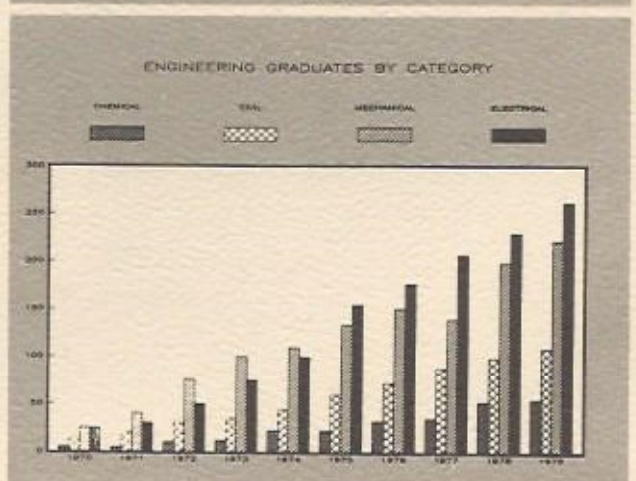
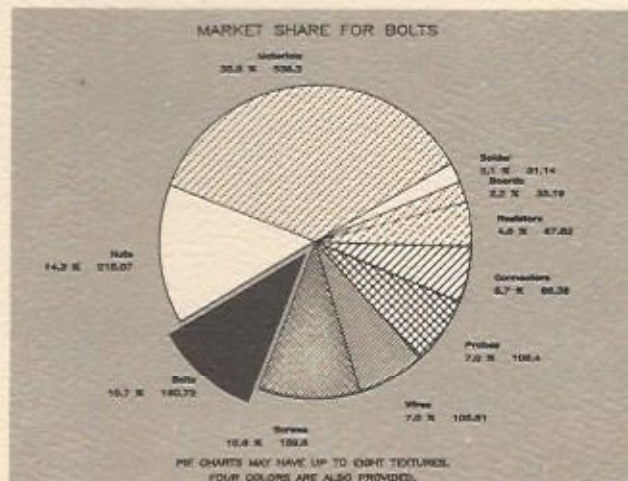
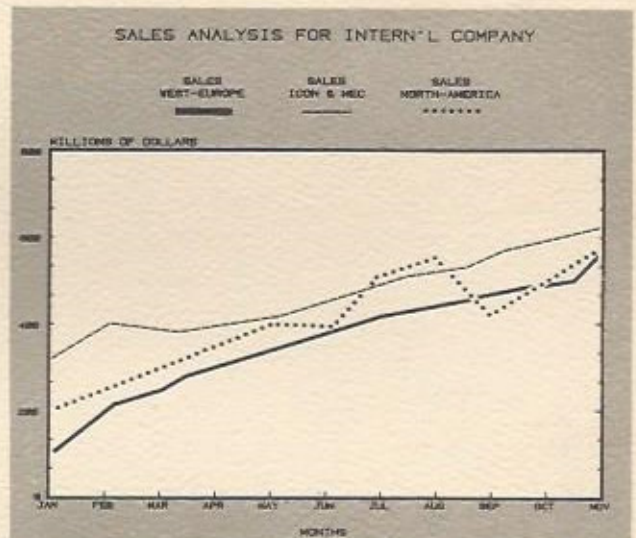
HP DSG/3000 also offers a powerful capability in program development. Both the interactive user and the programmatic user have access to the full capabilities of the product.

HP DSG/3000 facilitates the creation of line graphs, horizontal and vertical bar charts, pie charts, and scattergrams. All charts can be annotated with symbols and text.

## Features

- The one-time user can explore data and easily produce charts.
- The periodic-user can design, modify and save charts to be used again on changing data.
- Data can come from any tabular file on the system which was created by the EDITOR, V/3000, QUERY, any user-written application program, or was entered through the terminal keyboard.

- Since chart design is independent of the data, data can be updated or modified without changing the chart specifications.
- Data can be automatically scaled but flexible design options let the user change any standards provided.
- Data transformation and subsetting capabilities will help you to mathematically reshape your data to be graphed.
- Annotations are provided to enhance and customize charts with symbols and text.
- Chart boundaries can be set by the user. This provides for multiple charts to be placed on one page for easy comparison.
- Chart design is device independent.
- Provides a comprehensive set of program procedures which can be called from COBOL, BASIC, FORTRAN, and SPL.



## Interactive Use

The HP DSG/3000 interactive interface is designed for maximum ease of use. Chart design is guided by screen menus presented in logical sequence with fields to be filled in by the user. No special command language is needed — just fill in the blanks, and with the help of softkeys you can easily browse through the entire chart file.

It is ideal for periodic use! Once a chart has been designed, it can be saved in a graphics portfolio, the chart file. This enables the user to reuse the chart periodically on different or revised data. An interactive option provides for multi-page reports of multi-color charts produced entirely unattended. These charts are cut and neatly stacked in the plotter tray for pick-up and distribution.

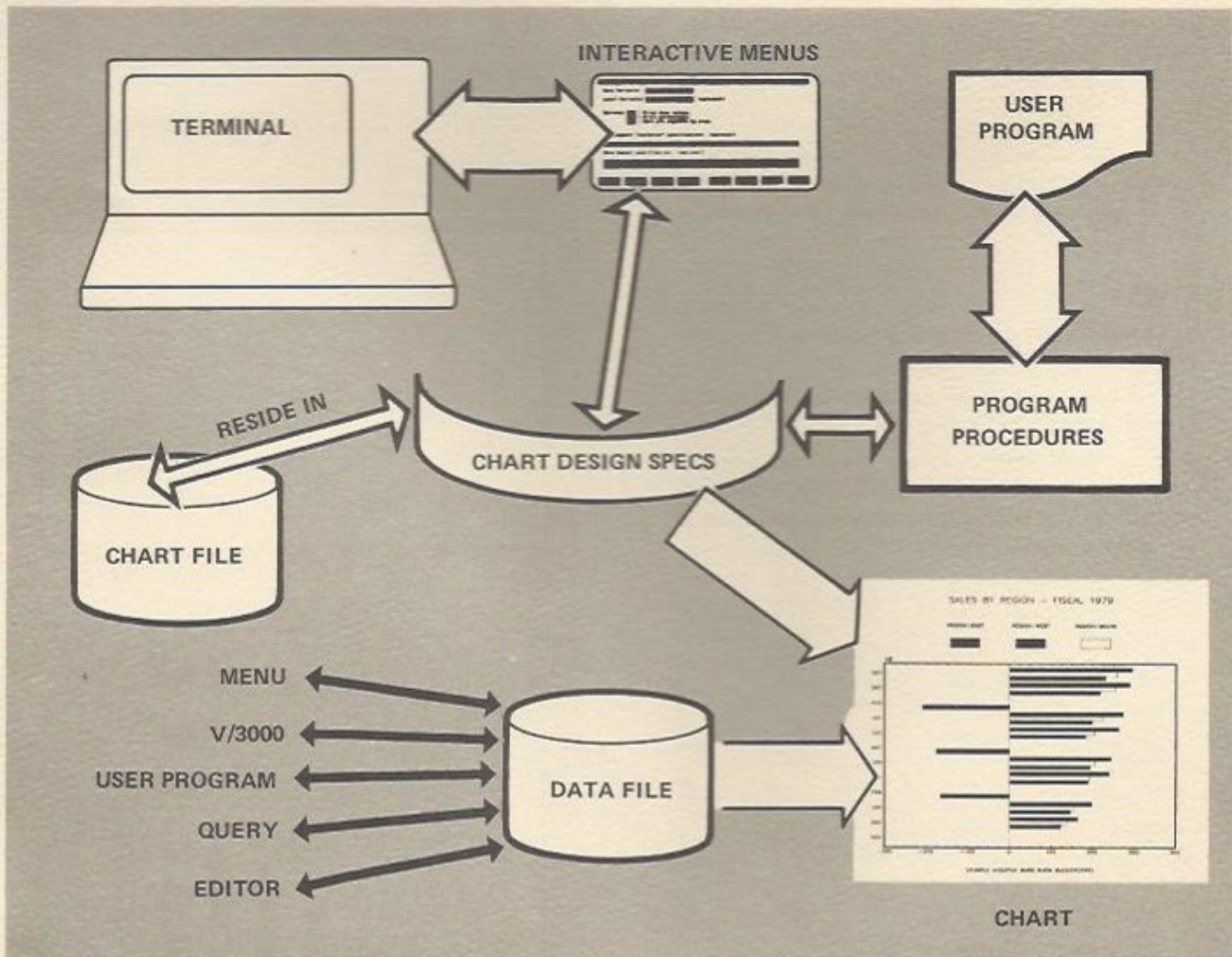
HP DSG/3000 also provides great flexibility of design. Many options and enhancements are available to the user, but sensible standards are provided so that high-quality, multi-color charts can quickly and easily be produced. At the user's option, HP DSG/3000 will dynamically alter specifications such as axis scaling and labeling to adapt to changes in the data.

## Programmatic Access

User application programs are provided with total flexibility through the use of the HP DSG/3000 program interface to create, modify, and produce charts. Over 50 high-level program intrinsics aid the programmer in efficient and easy implementation of graphics capabilities without having to learn a graphics language or complex protocol. HP DSG/3000 can enhance a program which periodically generates reports to include customized charts to clarify data or emphasize a point. All capabilities are accessible programmatically, including chart design and execution. These procedures can be called from any user-written program in COBOL, BASIC, FORTRAN or SPL.

## Data and Chart Specification

In order to produce a graph, you must specify both the chart attributes and the data file. A chart contains the skeletal characteristics of a graph such as graph-type, title, legends, and annotations. Several different charts can be stored in a single chart file. The data file contains the actual values of the variables to be plotted, and is completely separate from the chart definition.



## Data Sources

The data file containing the values of data variables to be graphed is an MPE file that can be generated by:

- QUERY
- V/3000
- EDITOR
- User report-generating programs
- Entered through an HP DSG/3000 data entry screen

## STRUCTURING THE DATA FILE

HP DSG/3000 provides several optional features which provide control over the variables and data to be graphed. These features can help to transform numeric values into graphical format that best communicate the information.

### Data Transformation

Data transformation provides the capability to mathematically transform original data values and create new data. HP DSG/3000 will perform the necessary calculations and graph the resulting values. You can select from any combination of arithmetic operations and common functions — no programming is required!

**Arithmetic Operations:** Add, subtract, multiply, divide, modulo, and exponentiate.

**Common Functions:** Base-ten logarithm, square root, and absolute value.

**Graphics Functions:** Cumulation and moving average.

### Subsetting

You can quickly eliminate data which is not needed in your analysis or discussion through data subsetting. For example, you may want to include data for a 3-year period only while the data file may include data for five or more years. This means that you can make several graphs from different subsets of the same datafile.

### Qualifications

There is often more than one way of constructing a data file to produce a particular graph. Your data may have been stored and retrieved in such a way that a single data field contains information about more than one graphical entity. HP DSG/3000 lets you qualify the data in a field so that the individual dependent variables are uniquely identified.

### Specification of Missing Data

Some of the values of your variables may not be available to you at the time you create your data file. You can designate data as missing and HP DSG/3000 will ignore it when plotting the graph.

## Hardware Environment

- The minimum hardware system recommended to implement HP DSG/3000 is an HP 3000 Series II, III, 30 or 33 with 512Kb of memory. However, the amount of memory actually needed is dependent on the overall system load and customer's expectations regarding performance and terminal response time. Consultation with your local sales office is recommended.

- Terminals supported by HP DSG/3000: 2641A, 2645A & 2626A (chart definition only) and the 2648A & 2647A graphics terminals connected to asynchronous controller (ATC).

- Plotters supported by HP DSG/3000:

#### High-Resolution Vector Pen Plotters:

— RS-232 configured in eavesdrop mode between terminal and computer or can be directly connected to a terminal port: 7221A/B/S (4-color) and 7225A (with 17604A Personality Module).

— HP-IB configured as "shared peripheral" from 2648A or 2647A graphics terminal: 9872A/B/S (4-color), and 7225A, (with 17601A Personality Module).

Graphics  
Printer/Plotter: 7245A/B.

## Software Environment

HP DSG/3000 requires current version of the MPE operating system. V/3000, which is a standard part of the fundamental operating software, is required for chart definition.

## Documentation

For further user-oriented and technical information, consult the following HP manuals:

HP DSG/3000 Guide (32250-90002)      HP DSG/3000 Manual (32250-90001)

## Customer Training

HP DSG/3000 customer training will consist of two courses because the product addresses two different types of users:

1. A "Self-Paced" module to teach the interactive user: Product #22833A.
2. A classroom course for the experienced application programmer: Product #22834A.

## Order Information

HP DSG/3000 is available according to the terms and conditions of the Hewlett-Packard Software Purchase Agreement. The agreement defines the initial payment and monthly fees for the standard product.

Product Number	Purchase Description
32250A	HP DSG/3000 Right-to-Use
32250R	HP DSG/3000 Right-to-Copy once;
32250T	CSS for HP DSG/3000
32250V	CSS for an additional system: HP DSG/3000;
32250S	SSS for HP DSG/3000;
32250Q	MUS for HP DSG/3000.
22833A	Customer Training: Interactive User
22834A	Customer Training: Application Programmer