

These problems are vexing because the rest of *Charting Gallery* is rather easy to use. Data entry, whether direct or imported, is simple. The program imports ASCII and DIF files, as well as 1-2-3 and *Symphony* worksheets, straight into their proper boxes and columns on the data entry worksheet screen. You don't have to convert the Lotus files first; just hit the function key for Get Worksheet and you're ready to graph your numbers. Databases such as *dBASE III* or *Multiplan*, however, must first be converted into ASCII or .DIF files.

Installation and configuration also come easily; a wonderfully clear set of colorful screens guides you through every step. To select a driver, you simply move the cursor through a list of choices, pressing a function key to install your highlighted choice. Once the drivers are installed, the choices appear when you want to print. Bravo, HP, for making the configuration process so simple!

Charting Gallery recovers extremely well from errors such as an open disk drive door, a full disk, a nonexistent file, and so on. In all my testing, the program never got hung up. This time, credit goes partly



To make a chart with *Gallery Collection*, you must travel through a network of unintuitive and easily forgotten function key paths.

to the menu-driven interface. If you haven't installed a plotter driver, for example, the name of the plotter won't appear on the function-key menu for output. There's no way to pick the wrong device.

The documentation, although of professional quality, is generous with reference material but stingy on the tutorial side. Still, the well-written reference manual spells out most charting operations in detail. Vendor support for the product appears to be excellent.

SPRUNGING UP *Charting Gallery* contains a wealth of special features, including a handy file-manager screen. The most special feature of all, however, is *Drawing Gallery*, included for freehand graphics production and for sprucing up the appearance of your charts. *Drawing Gallery* gives access to many text enhancements regarding fonts, type size, and placement. With it, you can create organizational maps, flowcharts, diagrams, schedules, and forms. And you can get rather fancy, adding thematic graphics, lines, arrows, boxes, symbols, shapes, text, and much more to your charts. More than 600 images come with the basic package; additional portfolios, each with about 200 to 300 images, cost an average of \$95 apiece.

The *Gallery Collection* lists for \$695, largely due to the inclusion of *Drawing Gallery*. For high-end users, that price certainly represents a value, but anyone interested only in basic graphics might want to consider *Charting Gallery* alone, priced at \$295.

Overall, *The Gallery Collection* is very

powerful software with the potential for beautiful results. Unfortunately, getting to those results is no simple task. If the excessive menus and their awkwardly placed selections could be rearranged, I would not hesitate to recommend this package for high-end applications—even for beginners. As it is, you will have to work hard to master this package. —Phil Wiswell

GrafTalk

You can get anything you want with Software Solutions' *GrafTalk*, but you may have to work at it. Dual y-axis graphs, text charts, free-floating text, scatter charts with regression lines, and a host of other basic and exotic features make *GrafTalk* a serious program for those willing to spend the time required to master its intricacies.

The program has been around for quite a number of years and is now in its fourth major release. Originally published by the Redding Group, it was recently acquired by Software Solutions, publishers of the database program *DataEase*. According to company representatives, Software Solutions is working on a new version of the program that promises to retain many of the original capabilities while improving the user interface. Since it is due out at about the time this review should appear in



FACT FILE



The Gallery Collection

Hewlett-Packard Co.
3410 Central Exp.
Santa Clara, CA 95051
(408) 749-9500
List Price: \$695; *Charting Gallery* alone, \$295
Modules: Office Activities Portfolio, \$95; Chemical Petrochemical Portfolio, \$150; HP Draw Figures Portfolio, \$175.

Requires: 384K RAM, two disk drives; DOS 2.0 or later.

Supports: IBM Monochrome Adapter, CGA, and EGA; Hercules monochrome/graphics card; Dot matrix, ink jet, and laser printers; plotters; HP 7510A film recorder.

In Short: This package, combining basic graphics with a freehand capability, can produce spectacular, high-quality hard copy. A poorly organized, confusing menu interface and a lack of on-screen help, however, seriously detract from the program's usefulness. Not copy protected.

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FACT FILE



GrafTalk, Version 4.1

Software Solutions Inc.
12 Cambridge Dr.
Trumbull, CT 06611
(800) 243-5123
(203) 374-8000
List Price: \$695

Requires: 256K RAM;

two disk drives; DOS 2.0 or later.

Supports: IBM Monochrome Adapter, CGA, and EGA; Hercules monochrome/graphics card; Tecmar Graphics Master Adapter; Dot matrix and laser printers; plotters; Matrix QCR image recorder.

In Short: A powerful program with a confusing assortment of user interfaces, manuals, and options, *GrafTalk* is only for the hardy. A new, easier-to-use version is slated for release soon. Not copy protected.

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print, you may want to check out the new version if this one has the kind of features that interest you.

And *GrafTalk* does have many features. It starts off with many of the basics: bar charts (horizontal, vertical, clustered, and stacked), pie charts, line charts, scatter charts, high-low graphs, and area charts. It then goes on to offer some more unusual options. Bubble charts allow you to compare quantities (one as an absolute and the other as a relative measure) for a number of observations. *GrafTalk* also offers regression lines and table charts that show your data. You can position your bottom x axis at any value on the y axis you choose, and you can set up different left and right y-axis scales.

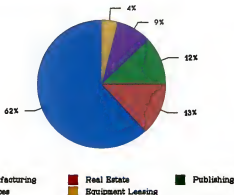
GrafTalk also produces text charts. Its sketch feature enables you to draw geometric shapes and freehand lines, so you can create drawings and organization charts. Twelve different fonts are available, and you can size each to suit your needs, plus choose either roman or italic style. You can send the text in any direction, including angles. Also, *GrafTalk* lets you combine different types of charts on a single plot. There is a slide-show feature in *GrafTalk*, and you can even create custom menus and prompts.

The program produces fairly attractive graphs quickly. It plotted fast in our test with an HP 7470A, and the characters it produced were a little angular but acceptable.



GrafTalk gives you control over a wide range of graphic design elements, but they can be complicated to master. Fortunately, the program can create acceptable graphs like the one shown below using the default settings. The subtitle on this graph is free-floating text; you can control its size, font, and placement.

Pie Chart: *GrafTalk*
The Varied Sources of Income



A GRAPHING PROGRAM LANGUAGE

GrafTalk in its elemental form is really a graphing program language. You create graphs by defining data sets and then stringing together a series of commands to define the graph. These commands may be issued at a *dBASE*-like dot prompt or stored in a command file for execution. For example, here is the command file to create a basic pie chart with just a title, percent labels for the segments (a default setting), and a legend

```

@ DATA
1 2 3 4
@ END
TITLE "A Pie Chart"
LEGEND AUTO "TV" "Mags"
      "News" "BBoards"
PLOT PIE R1
    
```

A simple area chart can require a command file of 30 lines or more. *GrafTalk* includes a simple editor that you use to create the command files, but it is not much like any popular editor and takes some getting used to before you can become proficient in its use.

GrafTalk's problem is its user-intimidating interface. How intimidating is it? Before you even get to the four distribution disks, you encounter a mass of documentation: three small pamphlets, a thicker booklet, and three thick wire-bound manuals. The primer booklet shows you how to start the program and draw a simple graph using the three different modes. You then turn to the Sampler to see a series of graphs and a description of how they were created, or to the Reader, which provides a topical overview of the different *GrafTalk* features, or to the Encyclopedia, a reference manual of the 160 (yes, 160) different commands in alphabetical order.

Fortunately, *GrafTalk*'s makers took pity on its users and created not one, but two different front ends to the command-driven system. Its menu mode lets you select options for different types of operations, such as entering data, setting legends and titles, and choosing the plotting device. This option limits access to only some of the program's power.

The prompt mode, on the other hand, asks you a series of questions about the graph you wish to create and then it draws it for you. You then have the option of

changing the settings, which leads you to a menu that is similar but not identical to the menu mode menu. I found *GraftTalk* easiest to use with the prompt mode, but I still had to "duck out" and use the command line to perform some operations, such as deleting rows or columns from my data sets.

GraftTalk is weak in data import: it will import 1-2-3 data from worksheet files but not titles or axis labels. Also, it doesn't show much intelligence in its use of pens on a two-pen plotter. It will prompt you to switch pens as needed, but it will require you to run through all the required pens twice since it prints the entire graph before it prints any of the legend.

The program has poor prompts and error-trapping, too. When entering legend captions arranged in a vertical list on the



Impressionist does have the features necessary to create complex, superb-looking charts, but mastering this program is a nightmare.

screen, for example, it prompts you to press cursor keys to move from field to field. The Cursor Down key would seem to be a logical choice, but instead it behaves erratically. You must either press Enter twice or use the Cursor Right key to move to the next caption field. When I entered a long title for a graph and then tried to draw the graph, I was told that there was not enough room to print a legend caption. I tried using smaller type for the legends, but that did not help. When I removed the legends entirely, I was told that "6" was too long to plot on the graph. These red-herring error messages never referred to the graph title itself, and the problem went away as soon as I shortened it. And *GraftTalk* is a somewhat fragile program, rely-

ing on DOS to trap some disk errors.

Customer support is good, though, which is unusual for newly acquired products. And the person I spoke to was knowledgeable about the quirks and pitfalls you might encounter when using the program.

Overall, *GraftTalk*'s many powerful features make it interesting, but they still don't balance out its intimidating interface and its documentation problems. If Software Solutions made *GraftTalk* easy to use (like its *DataEase*, which has a menu-driven interface), then the program might well be worth considering. My advice: wait for the new release. —**Alfred Poor**

Graphics Express

There's more to *Graphics Express*, from Bell & Howell Co., than meets the eye. Behind the friendly-looking opening menu hides a mammoth program that supports digitizing tablets and sophisticated output hardware; it also offers powerful features for generating and customizing almost any kind of business graph or word chart.

The package is based on a Zenographics program called *Mirage*, which was first copyrighted in 1981. One of the primary purposes of the Bell & Howell version is to offer support for its own \$6,000 film recorder, the Color Digital Imager IV. The program retails for \$1,200 and is appropriate for the corporate heavy user who wants control over a variety of output devices and has at least one expert on staff to supervise the use of more-advanced features.

Graphics Express will import ASCII, .DIF, and .SYLK files. The only major type of graph it cannot generate is the organization chart.

Although *Graphics Express* can run on a floppy disk system, you'd have to do too much disk swapping with this 1.8-megabyte program to make that very practical. The copy-protected program requires a key disk to load, and installation is easiest if you intend to use the Bell & Howell default list of equipment. This list, of course, includes the company's \$6,000 film recorder, but also less-exotic hardware such as the Hewlett-Packard two-pen plotter and Epson printers. You must later enter any deviations from the automatic assignments made in the installation batch file in-

dividually as DOS command lines. Here you can specify devices such as the Video Show 160 and the Polaroid Palette, also thermal, ink jet, and laser printers.

The opening menu, labeled Level 1, has nonthreatening options like Make a Graph and Tutorials. However, Level 2 has layer upon layer of menus intended for experienced computer users, as well as a command language. You access this level by pressing Shift-F8, an option that does not appear on the Level 1 menu. The theory is to shield novices or occasional users from the complicated features but permit them to create simple graphs. The result in Level 1 is, for example, that you can add a main title to a graph but not a subtitle.

PROGRAM STRUCTURE An intricate program structure has its advantages. In Level 2 you can plot multiple graphs on the same page, display three axes on a bar chart with different scales if you like, perform linear regression, show negative values in a different color, and even maintain a database. You can select most functions



FACT FILE



Graphics Express
Bell & Howell Co.
Quintar Division
411 Annapolis Ave.
Torrance, CA 90501
(800) 233-5231
List Price: \$1,200;
Optional Typefaces,

Volumes 1 and 2, \$95 each.

Requires: 384K RAM; two disk drives or hard disk; DOS 2.1 or later.

Supports: IBM CGA and EGA; Hercules monochrome/graphics card; Tecmar Graphics Master adapter; Bell & Howell Quintar Q1080 card; Bell & Howell Graphport card. Dot matrix, ink jet and laser printers; plotters. Polaroid Palette, Matrix QCR, Matrix PCR, and Photometric image recorders; Video Show 160 presentation system. Bell & Howell Color Digital Imager IV serial device.

In Short: *Graphics Express* is a many-featured package most attractive to experienced computer users who need support for sophisticated output devices; it's difficult to learn but produces elaborate graphs quickly for those who know how to use it. Copy protected.

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