PC TAP

Consumer Report

Lotus 1-2-3 for DOS Release 2.3

Lotus Freelance Graphics for DOS Release 4.0

FINAL ISSUE!

PC TAP CONSUMER REPORTS
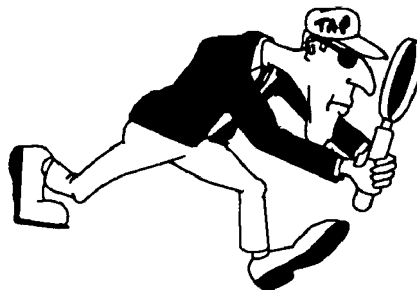
From the Editor's Desk

Since August 1989, we have averaged a *PC TAP Consumer Report* every other month. Some have had more impact than others, and we're sure we haven't pleased all the people all the time. However, we've received enough positive feedback to be confident we've been on the mark more often than not. For the most part, it has been a good experience researching the material for these reports, and writing and publishing them. To tell the truth, it's been enjoyable and rewarding.

As I'm sure you are all well aware, FY92 is a time of real belt-tightening for EPA. The National Data Processing Division is no exception, and management has had to take a hard look at the various functions it subsidizes. With an eye toward eliminating non-essential functions—even when those functions serve a worthwhile purpose—the decision has been made to discontinue a number of activities, including the PC Technology Assessment Program.

This is the last *PC TAP Consumer Report* you will receive. Although it was ready in December, printing and distribution were delayed pending final decision on the status of PC TAP. In *This & That*, on Pages 15 and 16, you will find a cumulative index of the 14 reports that have been published. Back issues of most are available; call us or send an Email of you want copies.

Sincerely,

David A. Taylor
PC TAP Coordinator

New DOS Releases of Lotus 1-2-3
and Freelance Graphics

Introduction

In *PC TAP Consumer Report #13* we gave brief descriptions of the new releases for DOS of two stalwarts of Lotus Development Corporation's software family: Lotus® 1-2-3® for DOS Release 2.3, and Lotus Freelance Graphics™ for DOS Release 4.0. At that time, we also referred to our in-progress project to look at these two products in more depth, and promised to provide a more detailed report upon completion of the evaluation.

With the help of the PC TAP External Resource Network, users of spreadsheets and graphics software who were willing to serve as evaluators were identified. Participating organizations include Regions I, II, VI, and X; the Washington Information Center; and the labs at Ann Arbor, Athens, Cincinnati, Edison, Gulf Breeze, Gulf of Mexico, and NEIC. The group represented a good cross-section of the user community, with self-reports of level-of-expertise with spreadsheets and graphics programs ranging from novice to expert.

Evaluators' hardware ranged from Epson and PS/2 286-based PCs to PS/2 Model 70 386's with 6MB of memory. Several used NCR 386SXs; one person had a diskless NCR. Lotus Development Corporation generously provided evaluation copies of the software to those who participated. PC TAP developed an evaluation questionnaire, which each evaluator completed and returned to us. Their ratings and their feedback are summarized on the following pages.

Lotus® 1-2-3® for DOS Release 2.3

The capability to work in a completely interactive, graphical environment certainly is a major highlight in this release of 1-2-3. This functionality is called *Wysiwyg*, for what-you-see-is-what-you-get. The 1-2-3 Wysiwyg environment brings with it a variety of formatting options, on-screen fonts, colors, text-formatting, shading, and graphics capabilities. When the Wysiwyg option is included in the 1-2-3 installation, the user can switch between it and the traditional 1-2-3 environment by toggling between their respective menus.

Lotus Development Corporation calls 1-2-3 Release 2.3 "a major upgrade of 1-2-3 release 2.2 that unites the power of a state-of-the-art DOS spreadsheet and an easy to use, interactive, graphical work environment." In summary, they have built a graphical interface and mouse support into the product, streamlined it so it will run as fast or faster than any previous release of 1-2-3 on nearly any PC/XT, AT, or Lotus-certified compatible computer with an 8088 or better microprocessor.

Beyond the basic hardware platform, system requirements are fairly modest. You need MS-DOS version 2.1 or greater. 1-2-3 itself requires 384K of memory; 512K is needed if you want to run the optional Wysiwyg add-in. Up to 12MB of additional expanded memory based on the Lotus-Intel-Microsoft Expanded Memory Specification, version 3.2 or 4.0, may also be used. At least a high-resolution CGA monitor is required, and if you're going to use Wysiwyg VGA is recommended.

The amount of fixed disk space you need depends upon how many you decide to install of the several companion programs that come with 1-2-3. The table below, which was taken from the *Getting Started* manual that is included with the program documentation, addresses this issue in more detail.

Program Name	Description	Disk space required
1-2-3	Combines spreadsheet, graphics, and database.	1,950,000 bytes
Wysiwyg	Lets you format, print, and add graphics to the worksheets you create.	2,310,000 bytes
Add-Ins	Auditor, Viewer, and Macro Library Manager add features to 1-2-3.	111,000 bytes
Wysiwyg-Go!	Online tutorial that teaches you how to use the Wysiwyg add-in to create more professional-looking worksheets.	1,070,000 bytes
PrintGraph	Lets you display and print the graphs you create in 1-2-3. (Unless you will use a pen plotter or print several graphs at the same time, you don't need to transfer PrintGraph.)	220,000 bytes
Translate	Lets you use data from other spreadsheet and database management programs in 1-2-3, or lets you convert 1-2-3 worksheets so other programs can read them. (Unless you plan to convert worksheets from other programs, you do not need to transfer Translate.)	541,000 bytes

By default, the 1-2-3 Install program automatically transfers 1-2-3, Wysiwyg, Add-Ins, 1-2-3-Go!, and Wysiwyg-Go! to your hard disk. Unless you specifically ask for PrintGraph and Translate, they aren't installed. Some quick calculations show that you need nearly 7MB of hard disk space for the default installation of 1-2-3 Release 2.3; closer to 8MB for all the options.

Another installation option that affects disk space is Wysiwyg fonts. In order for Wysiwyg to make what-you-get look like what-you-see, fonts must be generated that are compatible with the printer drivers you specify during the installation process. The available fonts are Courier, Dutch, Swiss, and Xsymbol, for which users may select among three available sets of type sizes. The Basic set includes point sizes 4, 6, 8, 10, 12, 14, 18, and 24; the Medium set adds type sizes 9, 11, 16, and 36 to the Basic set; and the Extended set includes all the previously-mentioned sizes along with sizes 5, 7, 13, 30, 48, 60, and 72 point. The three font sets require 200-400KB, 350-750KB, and 800KB-1.4MB of disk space, respectively. The ranges in space requirements are related to the characteristics of your monitor and of the printer drivers you install. According to the documentation, the Basic set is adequate for most users' needs, and Lotus recommends you select Basic as your initial font set.

Among the major new features of 1-2-3, Lotus lists these as the most significant:

- A Wysiwyg Interface that provides a live graphical interface in a DOS spreadsheet

- Fast, efficient file linking with Magellan® technology that allows you to see a worksheet before you retrieve or link it

- Auditor, a tool that helps analyze and document worksheet logic

- Improved graphics, with more graph types and expanded functionality

- Improved print management that includes a page compression feature that makes an entire report fit on a page

- Improved memory management so the program will accommodate larger spreadsheets

What the Evaluators Said

PC TAP's evaluation questionnaire addressed the major features of 1-2-3 Release 2.3. We asked product testers to rate various features on a 1-to-5 scale, with 1 being the least favorable rating and 5 being the most favorable. Participants were asked to enter a score of zero if they did not actually test a given feature, or if for some other reason they were unable to formulate an opinion. Average scores for each question are given in the following paragraphs, along with selected comments from evaluators. When we have insights through our own experience at PC TAP that shed light on any of the questions, our comments are included as well.

Questions about Installation, Setup, and Getting Started

We asked our evaluators about ease-of-installation, readability and organization of documentation, and usefulness of 1-2-3's interactive tutorial. Several people found the process to be quick and easy. One said, "Installation was absolutely no trouble at all," and added that a cursory review of the manual allowed him to complete the process "within minutes of receipt of the software." Another said "Installation rapid; instructions clear." One of the pieces of documentation, the @Functions and Macros Guide, prompted this remark: "Liked how (the) separate @Functions guide was organized."

Concerning the font-generation process, which we mentioned earlier in the discussion of disk-space requirements, one person said "Time consuming . . . since disk space varies by option selected, the installer should have an installation chart indicating disk space for each option . . ."

The overall scores on the 1-to-5 scale were: ease of installation, 4.4; readability and organization of documentation, 3.8; usefulness of interactive tutorial, 3.3.

Questions Concerning Wysiwyg

Several questions addressed the Wysiwyg capability. In explaining the advantages of Wysiwyg, the documentation suggests that you think of the conventional 1-2-3 menu as the door to the product's analytical tools, and think of the Wysiwyg menu as the door to 1-2-3's publishing tools. Use the 1-2-3 menu to create spreadsheets; use the Wysiwyg menu prepare presentations and reports. Some new commands have been added to the conventional 1-2-3 menu bar to accommodate new features. The folks at Lotus are quick to point out that new commands have been added at *the end of the list* to avoid disturbing the placement and order of previous commands with which current 1-2-3 users are familiar. This is seen as a major concession to user-friendliness.

Use of the menus follows the rules of previous versions of 1-2-3. You use the familiar forward-slash key to activate the 1-2-3 menu; the colon key is used in the same way to bring up the Wysiwyg menu. Switching between menus, or modes, is accomplished by striking the forward-slash or the colon, as appropriate for the desired function. You can configure 1-2-3 to always come up with Wysiwyg active, or you can elect to activate it only upon demand.

Along with questions related to Wysiwyg, we asked our evaluators about the mouse support that is included in release 2.3 Extensive use of the right mouse button is incorporated into the 1-2-3 mouse support. For example, you can toggle between the 1-2-3 and Wysiwyg menus by clicking the right button. You can also move through the menu bar's command list by clicking the right mouse button, rather than with the right arrow key as is the case in earlier versions. To execute a command, you click with the left button. Scrolling can be done by clicking on scroll arrows or holding the button down while the mouse pointer is on a scroll arrow. Worksheet cells can be "selected" by clicking on the desired cell with the left mouse button.

We asked evaluators to comment on how easy it was for them to adapt to switching between the two available menus when working in 1-2-3, and whether they chose to configure it so that Wysiwyg loads automatically when 1-2-3 starts up. They were also asked to comment about whether they considered the addition of new commands at the end of the command list to be a significantly user-friendly way in which to implement those commands.

For the question about how easy it was to adapt to switching between the 1-2-3 and Wysiwyg menus, the average score was 4.1 on the 1-to-5 scale. Eighty percent of the respondents said they configured 1-2-3 so that Wysiwyg loaded automatically when 1-2-3 starts up; 75% of this group said it was "definitely useful" to have both command lists readily available.

Opinions about the use of commands versus a mouse were more evenly divided. Those who prefer to use a mouse comprise 53% of all respondents, while 47% still like to enter commands with keystrokes.

Worksheet Size and Compatibility Issues

According to Lotus, Release 2.3 maintains keystroke compatibility with files, data, macros, and applications from previous releases of 1-2-3. It reads and writes .WK1, .ALL, and .FMT file formats. The product's memory-management capabilities enable it to build a worksheet as large as 4MB in size; up to 12MB if LIM expanded memory may be used.

To assess these features, we asked our testers to read files created in previous versions of 1-2-3 into Release 2.3, and to report any problems they encountered with worksheet file sizes. A broad range of file sizes was reported. The smallest was 7K bytes with 55 cells; the largest 400K with 10,000 cells. The average of the others fell in the ranges of 30-50K bytes and 1,000-2,000 cells. Eighty percent of the respondents, including the one reporting the largest spreadsheet, said they had "no problems" bringing their existing files into Release 2.3. One person said it was necessary to save a Release 3.1 worksheet as "2.x" before it could be read by Release 2.3. Another said the style characteristics of an Allways file were lost in the transfer, but the file was successfully read by Release 2.3.

Dialog Boxes and Named Styles

Along with incorporating a graphical interface and mouse support, Release 2.3 provides dialog boxes in many cases as an alternative to selecting commands from a menu. Dialog boxes use check boxes, option buttons, text boxes, command boxes, and list boxes to display available function options and solicit user command input. Rather than moving through a list of commands and pressing Enter with the cursor on the desired option, with dialog boxes the mouse is used, typically to click in a box beside the function or command option of choice. Popup dialog boxes, which overlay their "parents," take the place of nested menus. In 1-2-3, users may turn dialog boxes off if they prefer to use command menus instead. It's a simple matter to toggle between command menus and dialog boxes with the F6 function key.

Named styles are groups of formatting commands you create and save with a user-defined name. For example, if you routinely create reports that have many common characteristics (headings, fonts, text colors, underlining, bolding, columnar characteristics, etc.) you can format a worksheet cell that includes all the desired features and save it with a name you choose. Thereafter, whenever you want to create a document with the characteristics defined in a particular named style, you can just indicate the range of cells to which you want to apply those characteristics and specify the name of the style you want to use.

In our evaluation questionnaire, we asked participants to indicate how helpful dialog boxes were in increasing their productivity with 1-2-3, and how useful they thought named styles would be in their day-to-day work. On the 1-to-5 scale, the average scores for dialog boxes and named styles were 4.0 and 3.8, respectively.

Enhanced Graphics

The enhanced graphics capability is a major new feature in Release 2.3. With Wysiwyg you can create a graph in 1-2-3 and imbed it in a worksheet with a *hot link* between the graph and the spreadsheet data. Thereafter, when the data are revised, 1-2-3 automatically updates the graph to reflect the changes. With the graphics editing window, text, lines, arrows, polygons, rectangles, ellipses, and symbols can be added to graphs.

Our evaluators were asked to individually rate the three basic steps in the graphics process. Here are the results:

Task	Score
Creating a new graph	3.9
Adding a graph to a worksheet	3.8
Editing a graph	3.8

The question about enhanced graphics probably generated more comments than any other single item on the evaluation questionnaire. Here are some examples:

> Best thing since expanded memory!!!!
>
> The graphics capabilities combined with the "desktop publishing" capabilities . . .
> is so superior to anything else we have . . . that I would recommend its use for any
> job that requires a column arrangement. . . .
>
> 3-D graphics is useful.
>
> The graphics enhancements is a significant improvement.
>
> Still not as easy as a Mac.
>
> About time . . . this is a nice feature.
>
> Not much different from 2.01 with Allways.

The Viewer

The Viewer file management add-in is based on the technology that's familiar to many users of Lotus Magellan. With Viewer, you can browse your hard disk and read the contents of many files without ever leaving 1-2-3.

In operation, Viewer opens two side-by-side windows on your screen. The names of subdirectories and files appear in the narrower left-hand *List window*, while the contents of the currently-selected file are displayed in the right-hand *View window*. Viewer recognizes and displays 1-2-3, Symphony®, Lotus Works, and ASCII word-processing and database files. It tries to display any selected file, but some, such as executable code, will yield only unreadable characters and symbols.

Viewer can be used to quickly and easily create links between worksheets. When related worksheets are linked, changes to one are reflected in related data in the other(s). An example of a situation where linked files would be advantageous is the case where various groups are responsible for portions of a master report. The master report might list tallies that input from each group. If each group worksheet is linked to the master worksheet, revisions to an individual group's worksheet would automatically be reflected in the master worksheet.

We asked evaluators to rate both of Viewer's functions, browsing and linking. Somewhat surprisingly, file browsing ranked higher, with a 4.2 average as compared with a 3.7 average for linking. Perhaps browsing is a much more commonly-used feature, which would explain why it was judged more favorably.

Enhanced Print Function

The literature on 1-2-3 Release 2.3 characterizes the printing enhancements as a major improvement over previous versions. The Wysiwyg Print dialog boxes provide for quick and easy specifications of margins, paper dimensions, printer driver, and page numbers to print from the selected document.

A key feature is the ability to *make* a report fit on a single page. For example, suppose you create a report containing text, graphics, and worksheet data. Upon inspecting the result with the print

preview function, you find that it overflows the page by several lines. By selecting *Layout Compression Automatic* from the Print menu, you can instruct 1-2-3 to scale down the entire report to fit within the dimensions of a single page.

Another print enhancement allows the user to preview a report in black-and-white mode. While your on-screen view of your report may include text and graphics of various colors, this function lets you preview what it will look like when printed on a black and white printer.

On the evaluation form, we simply asked testers to indicate how satisfied they were with the printing capabilities of the product. The average score for all respondents was 4.3.

Execution Speed

Finally, we wanted to determine user satisfaction with the execution speed of Release 2.3. The question was stated like this: "Considering all aspects of your experience to date evaluating the product, how would you rate the operating speed of Lotus 1-2-3 for DOS Release 2.3 as configured on your machine?" The average score overall was respectable 4.0.

Looking beyond the responses to the question, however, reveals some fascinating insight into the question of users' perception of computer speed. Or, perhaps more appropriately, how one's *point of reference* affects his or her idea of what's *fast enough*.

With two exceptions, hardware used by the participants in this study was equally represented in two groups: 286 machines with clock speeds ranging from 8-16 Mhz, and 386/386sx machines with reported clock speeds in the 12-20Mhz range. The average scores for these two groups were 4.0 and 4.5, respectively; not significantly different, and both better-than-average ratings. Of the two remaining respondents, one used a 33Mhz 486 machine, while the other had a 6Mhz 8088 PC/XT. The 486 user rated speed a 4; the XT user recorded a 5!

Overall Product Rating

The final two questionnaire items addressed evaluators' overall impressions of Lotus 1-2-3 for DOS Release 2.3. First we asked them whether, if the choice were entirely theirs, they would upgrade from their present spreadsheet to 1-2-3 R2.3. If they said they would not upgrade, we asked them what they are currently using. Then we requested a final assessment, on the 1-to-5 scale, of the overall merits of the product.

Seventy-three percent of the respondents indicated they would upgrade to Release 2.3 if the choice were theirs to make. Products preferred by those who said they would not upgrade were Smart Spreadsheet, Quattro Pro 2.0, Microsoft Excel, and Lotus 1-2-3 R2.01 with Allways. One person said he would recommend an upgrade to Release 2.3 from Release 2.01, but not from Release 2.2.

The overall product rating on the 1-to-5 scale, with 5 being most favorable, was 4.1.

Comments of Evaluators

As is our custom, we provided space at the end of the questionnaire for respondents to add anything they wanted to say about the product or their experiences while evaluating it. Here is a synopsis of the comments on 1-2-3 Release 2.3.

I liked some of the new Wysiwyg stuff, but a lot of my spreadsheets either would not load, or would load but run out of memory trying to Wysiwyg print. If I had more memory (and the upgrade was _very_ cheap), I would upgrade. . . .

I found the new enhanced expanded memory manager a great asset. Many of my spreadsheets are very big. This feature allows me to use larger spreadsheets when I need. With the new linking this also seems to help.

Lotus 1-2-3 Version 2.3 has significantly advanced the utility of the Lotus product. I especially enjoyed the Wysiwyg add-in and made it the default presentation style. I feel that all of the supplied add-ins added value to the underlying spreadsheet utility.

I have supported all different brands of spreadsheets over the years. Lotus is an "OK" product, but there are much better products out there. . . . I think having two interfaces for a spreadsheet product is confusing to users. Some functions are available in Lotus menu and other functions are available in Wysiwyg.

. . . Wysiwyg font defaults should be PostScript fonts when a PostScript printer is installed. Replacing these fonts is very cumbersome . . . Liked Wysiwyg feature much better than Allways . . . PIF file and icon for Windows came in handy. Nice touch!

I am particularly impressed with the versatility of this release for the creation of worksheets/presentations that not only look professional, but are easy to read and allow the operator to place emphasis where needed. The program is very user-friendly, and with a little help from the tutorial manual, can be self-taught.

Summary

Clearly most of our evaluators feel that Release 2.3 represents a significant improvement over previous versions of 1-2-3, although several respondents indicated it lacks sufficient appeal to lure them away from their current spreadsheet products. Comments about the new features in 2.3, particularly those referring to Wysiwyg, suggest that Lotus was on target with what they believed users would like to see in the latest DOS version of the product.

The collective judgment of those who participated in this assessment is that 1-2-3 Release 2.3 represents a worthwhile upgrade for many Agency users. This conclusion is consistent with PC TAP's findings following an earlier, less detailed evaluation. In July, we recommended making this product available to users via the ACI contract.

According to Lotus Development Corporation, this release "has more power and is even easier to use than Freelance Plus 3.01." The enhancements incorporated into this product are said to have been based on extensive market research during which users told Lotus what they wanted to see in the product.

In an interview published in the May/June 1991 issue of Softmart® Newsware, Dan Shimmel, Director of Marketing for Graphics at Lotus Development Corporation, said "The Wysiwyg working environment is probably the most important improvement because it enables users to work with their graphics just as they will appear at output time. The graphical capabilities let users use the mouse and graphical user interface conventions to edit and size graphics, giving DOS users access to the benefits of a graphical environment."

Another key feature is the "smart chart update." Freelance Graphics stores chart data in the .DRW file with the chart itself, and whenever the data are updated the chart is automatically revised too. Charts can also be linked to an external data source, like a spreadsheet. In such cases, when the .DRW file is retrieved Freelance Graphics checks the currency of the source data. If the data file has been modified since the last time the chart was saved, the chart file is automatically updated.

This report is based on the Standard Edition of Freelance for DOS Version 4.0, which is intended for use on standalone PCs. (A *Node Edition* is available for LAN installation.) The Standard Edition requires an IBM PC/XT, PC/AT, PS/2, Compaq Deskpro, or Compaq Portable, or a PC compatible with any of the aforementioned types. The PC must have a hard drive and at least 640K of main memory. Other hardware requirements include a supported graphics adapter, a minimum of 8MB of available hard disk space, and 455K of free memory when Freelance is launched. There are "Reduced memory" and "Increased memory" options that restrict and enhance performance, respectively. The optional *GrandView LT Package*, which allows the user to create text charts directly from an outline, also requires additional memory and disk space.

Freelance Graphics for DOS requires DOS version 3.0 or later. Furthermore, the CONFIG.SYS file must contain a FILES= statement specifying at least 20 file handles, preferably 25.

Following installation of Freelance Graphics, users must install output devices. This is accomplished via the Device and Font Setup command from the program's Access menu. Freelance displays a screen on which devices you specified during product installation are listed. If you want to install additional device drivers, you can select "Install-devices" from the current screen menu and a list of all available devices will be displayed. You may select as many additional drivers from this list as you wish.

The list of major features in Freelance Graphics that, according to Lotus Development, were identified through direct response from Freelance users include the following:

- Easier, faster, smarter charts
- Interactive Wysiwyg displays
- Enhanced mouse support
- Faster, more automated presentations
- New menu commands
- New key functions

- Performance improvements, including increased-memory
  options, faster printing for all devices,
  and easier file access
- New defaults for colors and fills
- Expanded device support
- A disk-based tutorial and revised documentation

What the Evaluators Said

As with Lotus 1-2-3 Version 2.3, PC TAP's evaluation questionnaire focused on the major new features of Freelance Graphics. Evaluation participants were asked to respond to a series of questions, and the same 1-to-5 rating scale was employed. A summary of respondents' feedback follows.

Installation, Setup, and Getting Started

These questions brought mixed reactions from respondents. Some were favorable, others highly critical. Some of their comments illustrate the diversity of opinions:

Installation was very smooth, but the setup was still clunky.

I feel that charts and symbols should have been provided for in the menu directed installation, instead of requiring DOS level commands to place these files on disk.

Very easy to follow (referring to the documentation).

The "device directory" is an outstanding resource.

I found it easy to go through most of the documentation, but I am not sure if a first time user would understand every new term and option available with the package.

On the 1-to-5 rating scale, the average score for "ease of installation" was 3.7; the average was 3.3 for "readability, organization of documentation."

We asked evaluators if they had explored Freelance's context-sensitive help. Half of the respondents said they had used the help function. The average ranking for this feature was 3.0.

"Smart Chart" Features

Lotus says Freelance Graphics allows you to create "faster, smarter charts." Several items on the evaluation questionnaire addressed the new features that contribute to the *smart chart* functionality. First we asked about the benefits of not having to maintain separate chart and a graphics files, since Release 4.0 keeps both types of information in one single file. Although the average response for this item was only 2.8 and few comments were provided, two people thought this was a significant improvement over previous Freelance releases. One commented, "I no longer have to remember if I created a chart for this picture. I like that." The other person said "This was actually a problem for me at first. . . . In the old version, if cosmetic revisions were required to a chart, they would always have to be recreated after the drawing file was generated. Here, they are made one time only. This is a big time-saver."

Other smart chart features we asked evaluators to rate included the Chart Gallery, a group of templates of various chart types; the inclusion of a 3-D bar graph type; and the addition of an Automatic Data Tables function to Freelance. Automatic data tables allow you to display data in two forms, graphical and tabular. For example, suppose you build a bar chart to show monthly productivity of a function over several months. When the Automatic Data Tables function is turned on for the bar chart, a table presenting the same data is automatically displayed along with the graph.

Again, our evaluators were somewhat ambivalent about these features. Although a couple of people really liked certain aspects, several commented that the same functionality was available and easier to use in other graphics packages. The scores for Chart Gallery, Automatic Data Tables, and 3-D Bar Charts were 2.9, 3.2, and 3.0, respectively.

Another set of enhancements in Release 4.0 is related to the orientation of charts. *Automatic Chart Locations* allows you to select one from a group of predefined locations for placing your chart on a page: full page, left half, right half, top half, bottom half, top left, top right, bottom left, bottom right, and custom. The "Custom" option is expressed in terms of a percentage of the full page that you want the graph to occupy.

A second orientation-related enhancement is an increase in table size. Freelance for DOS Release 4.0 can display more data, since it can handle larger table sizes. The table below, which is reproduced from the *What's New* booklet that comes with Freelance, shows the inverse relationship between the maximum allowable number of columns and rows.

Number of columns	Maximum number of rows
1 to 8	120
9 to 16	60
17 to 30	30

Finally, we asked about the Transposed Tables feature, which swaps rows and columns in table charts. This capability allows you to easily change the visual orientation of tabular data.

The average scores for the three chart-orientation features were: Automatic Chart Locations, 3.0; Large table Size, 2.8, Transposed Tables, 3.1.

Wysiwyg

As in Lotus 1-2-3, the what-you-see-is-what-you-get concept has been heavily emphasized in Freelance for DOS Release 4.0. The three functions in which Wysiwyg is embodied are enhanced fonts, enhanced colors, and automatic redraw.

Freelance uses enhanced Bitstream® typefaces for screen preview displays when *Use actual output fonts* has been specified on the View Mode form. This allows you to see on your screen exactly what the printed page will look like. Two type faces, Swiss and Dutch, are provided, and both are available in regular, bold, italic, and bold-italic. Swiss is essentially the same as the Helvetica type face in which *PC TAP Consumer Reports* are printed; the other is Dutch, which resembles the New Century Schoolbook in which this phrase is printed.

When *Use actual output colors and fills* is selected from the View Mode form, the actual display colors and fills for your output device are used for screen displays. If the output device is a black and white printer, shades of gray are shown on your monitor screen.

Freelance automatically redraws the changed areas of the drawing page to correspond with changes you make when *Auto redraw* is selected on the View Mode form. This assures that you are always working with the most updated version of your chart or graph.

As a group, the Wysiwyg features were the most highly rated by our evaluators. The scores were: Use Actual Output Fonts, 4.1; Use Actual Colors and Fills, 4.1; and Auto Redraw, 3.9. Several people commented that the auto redraw function was unacceptably slow, particularly on 286 machines. One person said the slowness was compounded by inevitable "out of memory" errors before the drawing could be completed. However, one person who obviously was satisfied with Wysiwyg performance said it allowed him to reduce the overall time required to prepare good-quality graphics.

Performance Issues

Two questionnaire items were related to performance. One addressed the question of how much improvement was attributed to enhanced mouse support. The other simply asked to what extent the evaluator was satisfied with the performance of Freelance Graphics for DOS on his or her PC.

On the 1-to-5 point scale, we equated 1 with "I like keystrokes" while a score of 5 indicated "I like the mouse." The average for all respondents was 3.5, a modest bias in favor of the mouse, but certainly not a significant one. With respect to operating speed, nobody recorded grades at the either end of the rating scale. The average was a better-than-average 3.3. There was no discernible difference of opinion between users of 286 and 386 machines that could be attributed to the performance of the software.

Overall Assessment

Two questions, similar to those with which the Lotus 1-2-3 questionnaire concluded, were aimed at evaluators' overall opinions of Freelance for DOS Release 4.0. We asked, "If the choice were entirely yours, would you upgrade to Freelance . . . or would you stay with your current graphics package? Fifty-seven percent of the respondents checked "stick with my current product." Packages mentioned were CorelDRAW!, Harvard Graphics, Microsoft PowerPoint, and DrawPerfect. One person commented "I'm waiting for *Freelance for Windows."*

In response to an item that asked for the evaluator's overall assessment of Freelance Graphics for DOS Release 4,0, the average score was 3.3, where 1.0 is equal to "Poor Product" and 5.0 indicates "Outstanding Product." The mood of the group seems to be that there are some nice new features in this release, but none is significant enough to lure many of them away from other products they are presently using. Here are some quotations we selected from general comments about participants' experiences evaluating this product:

> This release of Freelance is a welcome change to 3.01 but the overall feel of the product was rather clunky. This feeling wasn't centered on any one area or option but an overall feeling that this release was more of a bubble gum and bailing wire job than an upgrade.
>
> Needs a tutorial . . . the package isn't very easy to learn.

I am currently evaluating business graphics packages. New packages are being announced weekly . . . I'll wait for FL for Windows to see how that compares.

I feel that a first time user will have difficulty going through the documentation and the program. Some of the features are good, but only an advanced user might be able to appreciate their use.

This is a product that has aged beyond its usefulness. . . . I think Freelance should be made a cheap, entry-level product.

I enjoyed the graphing features. We do a lot of that here, and this feature is great. However, with Lotus' new 1-2-3 and its graphing feature I may not use Freelance as often to do my graphing.

I feel that Freelance is poorly differentiated from the field of similar products. I found no compelling features which would lure me toward Freelance.

Freelance for DOS Version 4.0, like 1-2-3 Version 2.3, was recommended for addition to the ACI contract in July.

Conclusions

From the results of our evaluations of 1-2-3 for DOS Release 2.3 and Freelance Graphics for DOS Version 4.0 we can conclude that both products have been improved over previous versions. Participants in our evaluation project clearly feel that this is more true for 1-2-3 than for Freelance.

When assessing upgrades to mature products, it's important to keep in mind that enhancements and refinements are the order of the day, rather than large-scale changes. This is certainly the case with these two packages, both of which have been on the market for a number of years. Lotus' commitment to maintaining their DOS products to the highest possible standards is commendable, but the life cycle of DOS versions of most popular software is probably beyond its peak. Continued sales of such software, along with user demands for related services, will continue for some time because of the large installed base. But look for significant breakthroughs and innovations to appearr in GUI-based releases of the popular software products, not in their DOS incarnations.

Since this evaluation project was begun, Lotus Development Corporation has released Lotus 1-2-3 for Windows and Freelance for Windows. These two products are said to have all the latest features and capabilities, including some mentioned as "missing" by evaluators of the DOS versions discussed in this report. We hope you will have a chance to review the Windows versions; we look forward to a like opportunity.

This & That

PC TAP Consumer Reports
Cumulative Index

Report	Date	Features
#10	December 90	Grammar Checkers Open Forum: Low-Cost Macintosh Printers
#11	March 91	dBASE IV Version 1.1 Evaluation Open Forum: The ScanMan™ Scanner
#12	May 91	Desktop Publishing Platforms Open Forum: dBASE IV Version 1.1 Feedback
#13	August 91	PC TAP Update
#14	December 91	Lotus 1-2-3 R2.3 & Freelance R4.0 This & That: Final Cumulative Index