Many of you are undoubtedly wondering how to keep up with the pace of technological change. To get a better idea of the issues that are of greatest concern in our industry today, Linotype-Hell decided to poll a group of leading-edge users of the PostScript page description language, primarily in the American marketplace. The survey we sent out dealt with software, hardware, color and technical issues. The results are summarized in this technical information piece.

The people

The people surveyed were chosen in several ways. Many of them were Linotronic* imagesetter users who had contacted Linotype-Hell with questions related to graphic arts technical issues. Others had written or called Linotype-Hell to express an interest in this technical information series. And others were included because of their position in the industry as consultants, editors, or educators. A total of 224 people returned surveys.

This is not exactly a random sampling of the PostScript user base. These are people who are very interested in the high end of PostScript, particularly as it applies to imagesetter output. We sought out these people because we believed they would give us information that would be a good indicator of the current state of the industry as well as its future.

From data developed in the survey we learned that a large percentage of the people surveyed had job roles that fell into either management or technical categories. Their companies were primarily service bureaus, design studios, or typesetting shops (although printers and color separators were also well represented). We found that 69% of the respondents work for companies that own imagesetters. Most companies have over four years experience working with PostScript. Two thirds have beta tested software or hardware products. Company size varied from under 10 employees to over 100, with good representation over a range of size categories.

Software

The first focus of the survey was software. The group was asked what page layout, illustration, and image manipulation programs they used most frequently. They were allowed a first, second and third choice.

Page layout - QuarkXPress** and Aldus PageMaker** were the top two choices (see list to right), with QuarkXPress having the edge in first place votes. The PC version of PageMaker and Ventura Publisher** dueled for third place.

Page layout:	1st	2nd	3rd	Total votes
QuarkXPress	127	43	9	179
PageMaker	62	84	15	161
PageMaker (PC)	4	14	11	29
Ventura Publisher	4	2	20	26
DesignStudio	1	3	8	12

Illustration - Adobe Illustrator** beat out Aldus FreeHand** for first place with MacDraw** and Corel Draw** much further down (see list).

Illustration:	1st	2nd	3rd	Total votes
Illustrator	120	63	7	190
FreeHand	82	97	3	182
MacDraw	1	5	27	33
Corel Draw	3	7	22	32

Image manipulation - Adobe Photoshop** was the runaway favorite among image manipulation programs, with ColorStudio finishing a distant second place (see list).

Image manipulation:	1st	2nd	3rd	Total votes
Photoshop	136	12	3	151
ColorStudio	17	44	11	72
Digital Darkroom	8	17	16	41
ImageStudio	8	15	10	33
PixelPaint	1	10	7	18
MacPaint	4	4	9	17

Most useful recent software product - We asked people to choose the most useful program of those that they had tried in the last year. Here again Adobe Photoshop received the most votes by far, followed up by QuarkXPress, Adobe Type Manager**, Suitcase II**, and Adobe Type Reunion.** A wide range of products received write-in votes. Two write-in favorites were LaserCheck** and DiskDoubler.**
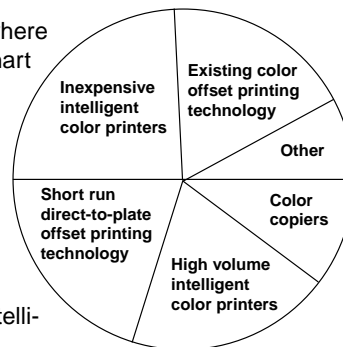
Software improvements - When asked where PostScript software applications needed the most improvement, the top response was trapping. Other issues that ranked high were compression, color separation, color fidelity and calibration. Bugs and customer support came in sixth and seventh. A number of people wrote in speed as an area of concern (and actually often in conjunction with compression).

Color

To find out the confidence that people have in color as a growth market we asked them to rank their agreement with the following statement: Color will be a growth market for the graphic arts in the 1990's. The resulting responses showed a very high level of agreement.

To follow this question up, we asked them where they expected to see this growth (see pie chart to the right). Inexpensive intelligent color printers came out on top with 24% of the responses. While existing color offset technology scored relatively well (17%), it is very interesting to see that many people expect the growth to come from relatively unconventional sources i.e., inexpensive intelligent color printers, short run direct-to-plate technology (20%), and high volume intelligent color printers (19%).

I have (or my company has) used films from a PostScript imagesetter to print live jobs with:

Single color	Percent
Type	90
Tints	82
Scanned halftones	74

Spot color	Percent
Type	86
Tints	81
Duotones	44

Process color	Percent
Type	77
Tints	71
Synthetic artwork	69
Scanned halftones	53

The final color question asked whether the respondent's company had used films from a PostScript imagesetter to print live jobs of various types (see list to left). This is another indicator of the expertise of this group of people, since these are significant percentages in all of the areas polled.

Respondent information

To get an idea of just exactly who was answering the survey, we asked a number of questions specifically aimed at the respondents. First we asked them to describe their job by checking a number of categories. They were free to choose more than one category if it was appropriate. The top three categories were production, technical and management. Consulting and design came in fourth and fifth. Then we asked them to list their job title. The largest group, nearly 25% of respondents, was production managers of various types (i.e., manager of electronic pre-press, systems manager, manager of typesetting, or manager of computer graphics).

Respondents were also asked about their company type. Here again they could mark more than one response. As mentioned earlier, service bureaus, design studios, and typesetting shops were in the majority. However printers, consultants and color separators were also well represented.

Some of the most interesting data came in response to a question about the equipment that each company owns and uses for graphic arts applications. (Please refer to the list to right.)

- Nearly everyone surveyed has a laser printer.

- Over 50% of the respondents own color printers.

- Not surprisingly, almost everyone owns a Macintosh** computer. However there are also a significant number of IBM PCs (or compatibles) being used for graphic arts applications.

- Over a quarter of the respondents use a video camera or video capture for graphic arts applications.

- 88% have desktop scanners. In the case of desktop scanners (and color printers for that matter), it would be interesting to know the types of devices and how extensively they are being used in production. This information will have to be gathered in another survey.

What equipment does your company own and use for graphic arts applications?:

Printers/Imagesetters
94% have laser printers
51% have color printers
69% have imagesetters
4% have some other device

Copiers/Presses
83% have B&W copiers
19% have color copiers
22% have 1-color presses
30% have multicolor presses
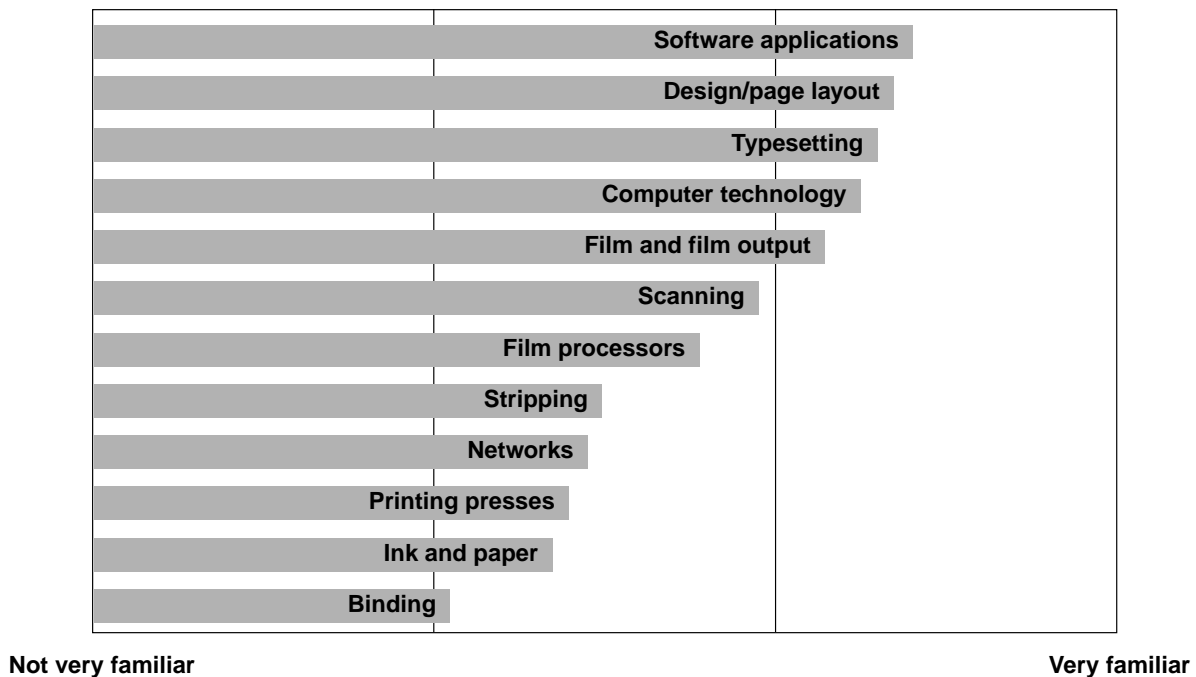2% have other equipment

Computers:
96% are Macintosh users
70% are PC users
24% are mainframe users
7.5% are NeXT users
12% use other computers

Scanners/Cameras
48% have stat cameras
32% have process cameras
26% have video camera/capture
88% have desktop scanners
29% have high end scanners
2% have other devices

Technological familiarity

Respondents were asked to rate their familiarity on a number of subjects. (See bar chart below.) This gives another good indication of the nature of the respondents (i.e., that they are primarily involved in pre-press operations, particularly design and typesetting). The most surprising result is that, though people are fairly comfortable with computer technology, they are not that familiar with networks.

Software applications
Design/page layout
Typesetting
Computer technology
Film and film output
Scanning
Film processors
Stripping
Networks
Printing presses
Ink and paper
Binding

Not very familiar   **Very familiar**

Primary issue for the 90's

Finally, we asked respondents to name the most important issue facing them as they entered the 90's. Categorizing an open-ended question can be difficult, but the answers fell into some general categories.

Many people are worried about the bottom line, i.e., profitability, survival, growth, and changing markets. Several people used the phrase 'niche marketing', and this term seems very appropriate in an environment where markets are changing so rapidly. When old customers disappear you may need to look in totally unexpected places to find new ones.

Color was a catchall category for many people, and received nearly as many responses as money issues. For many other people, keeping up with technology was the main issue, and here again we get back to the speed with which technology changes. This speed of change also plays a role in other common responses related either to the human issues of technology (training and maintaining a skilled workforce), to the issue of machine obsolescence (one person lamented 5 year leases on 1 year technology) or even to the effect of the introduction of new technologies into existing organizations.

One answer was hard to categorize exactly. A well-known industry pundit listed 'creeping senility' as the most important issue facing him as he goes into the 90's. But then it was also he who pointed out (as a footnote to a question on intelligent printers) that dumb printers were the ones that drooled.

Conclusion

This type of survey helps us know where we are, and gives us an idea of where we'll be soon. To keep current, Linotype-Hell intends to do another similar survey within the next year, so if you have any question that you would like to see addressed to a group of leading edge professionals, contact the author at the address below.

Acknowledgements

Many thanks to everyone who took part in this survey, either in the preparation of the survey or by completing a copy and returning it. I would like to thank Bob Schaffel of Sprintout for his comments and critique of the initial versions of the survey. Also many thanks to Jean Schmitt and Vickie Matus of Linotype-Hell for their work in developing the survey and in implementing the statistical analysis of the results.

Comments

Please direct any questions or comments to:

Jim Hamilton, Marketing Department
Linotype-Hell Company
425 Oser Avenue
Hauppauge, NY 11788