

Desktop Publishing, Part 2

Building the Industry

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■ **THIS IS THE** second special issue of the *Annals* devoted to the history of desktop publishing. The first issue appeared in the fall of 2018 (issue 40:3). It focused on the developments in the 1960s and 1970s for computer-driven printing and for the technologies that led, in the 1980s and 1990s, to the commercial growth of the desktop publishing industry. The first issue had seven principal papers, two on computerization of the Publishing industry, three on Xerox Palo Alto Research Center (PARC) and its technology developments, a paper on TeX, and an interview concerning the history of font development.

On May 22–23, 2017, the Software Industry Special Interest Group (SIG) and the Center for Software History, both part of the Computer History Museum, Mountain View, CA, USA, conducted a two-day Desktop Publishing Software pioneer meeting at the Computer History Museum to capture the recollections of those who had formed the industry. The nine workshops conducted during the meeting were videotaped. Some participants also had oral history interviews recorded. The workshop and oral history transcripts are at <http://www.computerhistory.org/collections/oralhistories> (search for the term: desktop publishing). Other materials relevant to the desktop

publishing special issues are at history.computer.org/annals/dtp.

At the Desktop Publishing Pioneer meeting, the attendees were asked to name what they believed to be the key elements that were necessary in order to create and grow the Desktop Publishing industry. Here is a summary of what the participants suggested.

- Infrastructure—a high-quality microcomputer; sufficient high-speed storage; a laser printer; graphical user interface; mouse and keyboard; high-quality displays; communication networks; affordable pricing.
- Fonts and Presentation—character outlines; raster imaging; WYSIWYG.
- Page Management—text description language; page layout.
- User Community Development—marketing; evangelism; newsletters; trade shows.

This second desktop publishing issue continues the story by describing how the technologies developed in the 1970s, both for the printing industry and at Xerox PARC, became the foundation for the growth of a number of desktop-publishing software companies, including Adobe, Aldus, Quark, Frame Technology and Ventura, as well as Apple's seminal entry in the industry with the Macintosh, LaserWriter, PostScript (from Adobe), and Page Maker (from Aldus).

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TIMELINE

P re-1982: The technology supporting DTP was becoming available, outline fonts were coming into use (vs. bitmaps), and (in 1981) Interleaf and Quark were founded.

1982: Adobe is founded and in 1983 demonstrates a prototype PostScript-supported laser printer.

1984: PostScript (Level 1) is announced, using Adobe font technology and fonts from International Typeface Corporation. The Apple Mac is released with a graphical user interface. Apple makes a deal with Adobe for the Apple LaserWriter to have PostScript built in. Aldus is founded.

1985: Aldus releases PageMaker for the Mac aimed at small businesses doing "desktop publishing." The Apple LaserWriter, including PostScript, is released. Adobe, Aldus, and Apple begin informal marketing of a desktop publishing solution for small businesses and organizations. PostScript is built into Linotype's high resolution Linotronic imagesetter. Interleaf's Technical Publisher Software (TPS) is released for SUN and Apollo workstations. Ventura is founded.

1986: Ventura Publisher is released for the PC running DOS. Frame Technology is founded and FrameMaker is released for the SUN and other Unix work stations in competition with market leader Interleaf.

1987: QuarkXPress 1.0 is released for Mac.

1988: Adobe releases the Encapsulated PostScript graphics format.

1989: At a Seybold conference, Apple and Microsoft declare their coming TrueType font technology is superior to Adobe's font technology; Adobe forcefully disagrees.

1990: Aldus is seeing serious competition from QuarkXPress and others. Fighting back against TrueType, Adobe brings out the Adobe Type Manager to make its font technology more widely available. Xerox buys Ventura and keeps it in the market.

1991-93: Adobe releases PostScript Level 2, Acrobat, and PDF. Apple and Microsoft release TrueType. QuarkXPress 3.1 and then 3.3 are released.

1994-95: Adobe acquires Aldus and PageMaker and then Frame Technology and FrameMaker.

1996-99: OpenType resolves the Adobe and Apple/Microsoft font technology competition. QuarkXPress 4.4 dominates PageMaker. Adobe brings out InDesign 1.0. (Later InDesign came to dominate QuarkXPress.)

2000: Broadvision acquires Interleaf and continues to market it.

The issue begins with the history of the Seybold Newsletters, Conferences and Trade Shows that Jonathan Seybold ran. These became the face of the desktop publishing industry and promoted its integration and growth. In editing the first special issue, we were struck with the roles that both John and Jonathan Seybold played in advising and encouraging early participants in the industry, and in introducing them to one another. Several of the authors of papers in this issue also write about those roles or about how a review in a *Seybold Report* helped their sales, and that the Seybold Seminars and Conferences were the important tradeshows for the developing industry.

The balance of this issue has the story of the primary companies that formed the desktop publishing industry in the 1980s into the 1990s. We start with Adobe, which became central to the industry as the pioneer software company that made desktop publishing practical. John Warnock and Chuck Geschke have written a paper that focuses on how they started the

company and built PostScript, making possible the successful business model, beginning with Apple. The company then grew internally and through judicious acquisitions to achieve its current paramount position in this industry.

This paper is followed by the history of Aldus. Suzanne Crocker, who conducted an oral history interview with Paul Brainerd, describes the company origin and the fact that he identified the primary market opportunity: newsletters, not volume publishers. This paper describes making the connection with Adobe and Apple, providing the vital page layout capability. Next, there is a story by John Scull and historian Hansen Hsu about how Apple was able to effectively market the Apple Macintosh computer together with the new LaserWriter printer as a package with PostScript and PageMaker to produce newsletters and other high-quality printed materials at an attractive price.

The issue continues with papers about the group of companies that entered the industry, competing with Adobe and Aldus with software that either added new functions, improved

performance or simplified the user experience. Tim Gill, the founder of Quark, was interviewed by Jay Nelson, publisher of *Design Tools Monthly*, and we have adapted that interview for the issue. Quark was a major competitor to PageMaker and helped to expand the range of users. David Murray, one of the founders of Frame Technology, writes the history of that company and how it was able to create a new model for viewing a page and putting together the various elements of text, photos and tables, and other graphics in a faster, more efficient fashion. Finally, we have Lee Lorenzen writing the history of Ventura, whose product speed and ease of use rapidly established it as a significant competitor in the industry.’

The workshop led to more material than would fit in two issues of the IEEE ANNALS OF THE HISTORY OF COMPUTING. The second part of a paper on the 40-year history of TeX as an open source alternative to commercial systems appeared in the April–June issue this year. A third issue in early 2020 will contain an interview with Liz Bond Crews, who was part of the Adobe effort to market PostScript, and a discussion by Charles

Bigelow of the use of digital font technology by companies struggling for market dominance (“Font Wars”) in the evolving publishing world.

To assist the reader to see the time frame in which these companies were founded, introduced their key products, and then were sold, we have the timeline in the sidebar on the previous page.

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