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A Newsletter for MegaSource

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TABLE OF CONTENTS

INTRODUCTION

This project is on developing a promotional newsletter for MegaSource, a small healthcare software development company located in Birmingham, Michigan. Companies have many reasons for publishing newsletters; limited advertising avenues and a small promotion budget initiated MegaSource's interest in newsletter promotion. When using a newsletter as a promotional vehicle, several factors need consideration: what value the company expects to receive from the publication, how to obtain the visual quality and written content desired, and the costs involved in production.

Producing a newsletter within budget limitations and time restrictions involved is a concern of the company. MegaSource uses IBM personal computer clones to demonstrate their product; with this background the most economical means for producing the newsletter is with the relatively new personal computer page composition packages.

This paper examines the following topics on developing a newsletter: A. Promotion with Newsletters; B. Desktop Publishing and Equipment Options; C. Newsletter Typography and Design; D. MegaSource, the Company and Its Market; and E. Newsletter Proposal and Budget.

A. PROMOTION WITH NEWSLETTERS

Newsletters are an effective means of communication for many organizations with highly specialized audiences. This publication format is the simplest, fastest, and least complicated of all periodical forms, and perhaps one of the oldest. The earliest known 'newsletter' is a handwritten document produced in sixteenth-century Germany documenting business news from around Europe (Hudson 1). What made a newsletter useful in sixteenth-century Germany is what makes one practical today: "they provide specialized information" (Hudson 7). Smaller and with fewer pages than a newspaper, newsletters make "the most appropriate communication tool for smaller or specialized audiences" (Kamp, Christenson 130).

Companies use newsletter publications to inform their employees of work related issues, and non-profit organizations use newsletters to keep their cause in front of their contributors. The strongly defined audiences for these organizational publications share common interest in the published product, the organization and its goals. These organizations find newsletters effective in accomplishing public relations objectives by developing public awareness and opinion.

End product newsletters, sold by subscription like magazines, are a recent development emerging as a communications industry in the 1960's (Hudson 2). These newsletters are informational or advice oriented on business or personal interest topics such as

financial, hobby, travel, ecological, or other specialized subjects.

Another type of newsletter is the marketing publication used to sell services and products. Many banks mail newsletters to their customers promoting financial services, and encouraging customers to open new accounts or take out loans. Public utilities, hospitals, group health insurance companies, education institutions, and retailers are in the growing ranks of industries using newsletters to advertise their services and products. A major advantage for any organization publishing a newsletter is that the medium provides a clear focus for the reader, without the distraction of competing advertising found in other communications media.

Orvis, a large mail order retailer, uses a newsletter to reinforce their catalogue mailings. This newsletter promotes hunting and fishing vacations, seminars and schools, and encourages the purchase of the company's sports related merchandise.

Newsletters are an economical method of reaching specialized cliental, stretching small promotion or advertising budgets effectively. James Laabs, of Douglas and Laabs Associates of Madison, Wisconsin, advises, "With a well-planned publication, marketers with smaller budgets can effectively communicate a larger volume of information than with traditional advertising" (Laabs 66). This feature makes newsletters a valuable marketing tool for many small companies.

Other marketing executives also recommend newsletters because of their ability to promote. Joe Obermeyer, Vice President of Marketing with Wolf Blumberg Krody, Inc, speaks of newsletter content as 'promotional journalism':

> Promotional journalism can be useful in creating awareness for a product, identifying potential customers, updating current customers on company programs, and more. We have recommended promotional journalism to help many of our clients seek out new customers and hold onto the old ones. Generally, we suggest two journalistic vehicles: magazines and newsletters. (Obermeyer 19)

The advent of page composition packages for use on personal computers makes publication of newsletters attractive to many businesses. First, these packages are cost efficient for companies. Second, they promote faster publication turn around times as typesetting and composition accomplished in-house is simple and quick. In-house publication capabilities give information protection for sensitive pricing information or new product introduction, a desirable feature for many companies.

Today, publication of newsletters is prolific; over 100,000 newsletters are printed (Hudson 2). The growth in newsletter communication is attributed by Camille Emig, in her article "Matching media with Audience and Message," to their effectiveness in reaching target audiences:

> The fastest growing communication is the newsletter, less formal and quickly produced, the newsletter's

> popularity can be attributed in part to the need to reach audiences already bombarded with information. Newsletters usually contain short, newsy items and are designed so readers can quickly go from cover to cover, usually only four to eight pages. (Reuss and Silvis 118)

As the cost of advertising media rises, the importance of the newletter increases. Its ablity to reach specific target audiences at a low cost per thousand insures its growth.

Advertiser James Laabs suggests good promotional publications to his clients because they overcome the recipient's resistance to direct mail advertising. Effective newsletters are different from the bulk of unsolicited mail because they come wrapped in an information envelope perceived of value. Laabs states, "Although people read because of the information value of the publication, they are exposed simultaneously to the promotion messages" (Laabs 14). Receptivity of reader to the message is another reason newsletters make valuable promotional media.

Profits generated by non-subscription newsletters are hard to substantiate. Butler Manufacturing Company, of Kansas City, uses a newsletter, Building Profits, to promote their buildings. Although they cannot tell how much new building construction is from the newsletter's promotion, their builders actively support the newsletter because leads generated from it generally develop into new business (Obermeyer 19).

When the newsletter is the product, statistics are more concrete. La Belle France, a newsletter devoted to French travel, provides reviews of French hotels and restaurants. Its popularity earns revenues of $312,000 annually, half of which is profit. Dan

Friedman writes La Belle France from his home, spending a quarter of his time researching in France. As of 1986 his two year old newsletter had 8,000 subscribers at $39.00 a year (Rachlin 21). Sales from three newsletters for photographers published by the same author, The Photoletter, and Photomarket and Photobulletin, grossed $175,000 with profits of $55,000 (Rachlin 22). The Hideaway-Report, a newsletter reporting on little known world-wide resorts had 12,000 subscribers in 1982, with a subscription price of $39.00 a year (Tuthill 74).

The key to the success of these newsletters is they all reach specific target audiences. Andrew Harper, publisher of the Hideaway-Resort, advertised his newsletter in the Wall Street Journal and The New Yorker. Both magazines' audiences are in the social-economic brackets interested in Harper's product: unique travel and vacation spots. Subscribers include professionals from many fields who are also interested in secluded locations for business meetings. Success in producing a newsletter depends largely on obtaining mailing addresses for contacting a specific target audience.

Businesses derive benefits besides profit from using newsletters in business promotion, particularly in the service industry business. Alternative promotional media usually require brief message length because of the cost or the small message retention capability of the medium involved. Newsletters convey lengthy promotional messages at a fraction of the cost of other promotional methods. When containing good editorial and news content newsletters help establish expertise and credibility for

the company producing them. The use of newsletters allows businesses to keep in touch with their clients between sales, educate clients in product usage, and convey a continuing interest in their customers' welfare. Businesses establish marketing position in the mind of new business prospects through newsletters and promote an image of solidarity in volatile markets. These considerations combined with the newsletter's flexibility and relatively low cost make the newsletter a strong marketing tool for reaching specific target audiences.

An aspect in developing newsletter is the projected content. When used primarily as an advertising or public relations vehicle, the newsletter must give information of discernable merit to the clients, making the time spent reading it worthwhile. The editorial and news content in newsletters helps give credibility to the organization sending the communication according to Laabs, making accurate information imperative, with commentary that arouses client interest (Laabs 11). Obermeyer suggests opinion columns, contests, feature stories, and information on product or policy changes as added enhancements (19).

With an increasing volume of promotional newsletters competing for audience attention, the format, or visual appearance, of the newsletter increasingly affects readership. Attractive, professional looking newsletters, even those produced with a typewriter and simple reproduction methods, encourages readers' scrutiny.

Companies with limited promotion budgets and complex messages or large companies with well-defined segmented target

markets find newsletters a valuable marketing tool. When properly developed and produced, the newsletter promotes market image and offers an alternative to wide scope advertising.

Currently, MegaSource communicates with contracted clients on a problem-solving phone hotline. Their product, pharmacy computer software, sells exclusively to automated hospital pharmacies. Management feels a newsletter will provide two types of communication: one, public relations communication with current clients in a non-crisis format, and two, as an informational communication acquainting prospective clients about the company and different aspects of the product. Sales personnel provide current client and prospective client lists for the newsletter.

In the past two years, desktop publishing programs, or DTP, have emerged as a major software industry with over eighty packages of DTP and related software generated for the MacIntosh and IBM PC alone. Michael L. Kleper, a professor of graphic arts at Rochester Institute of Technology, explains this phenomenal market growth.

> The impact of the microcomputer on the typesetting process has been twofold. First, it has pushed back the keyboarding phase of typesetting directly to the author's hands. This development has, in most cases, reduced typesetting costs, increased accuracy (by eliminating retyping and the errors inherent in the process), and reduced the overall turnaround time involved in getting the text originator's thoughts into print. The microcomputer also has provided a number of software tools, such as spelling, grammar, and style checkers; on-line writing aids (synonym searches, readability ratings, etc.); and hyphenation routines.
>
> Second, the microcomputer technology has developed its own identity as the nucleus of an on-line typesetting system. The system might use a dot matrix or page printer with the ability to set complete pages of text and graphics, or it might use an interface to connect directly to a phototypesetter. Sophisticated software packages are giving the microcomputer the capability to act like an integrated design station that not only originates text and graphics (and even photographs), but also combines them into a page format. (Kleper xiii)

The difference between word processing programs and DTP programs is not well-defined. Indeed, all DTP programs require a word processing program and a graphics program to generate advanced page layout. Many word processing programs contain enough desktop publishing capability to satisfy some users. These programs

usually have several type styles, editing capabilities, and limited page formatting styles. Wordprocessors output to many laser printers and typesetters, giving users the option of professional typesetting capability. Generally, what distinguishes a DTP program is a greater range of capabilities in page formatting, typography, and memory.

Equipment is a major consideration in acquiring a desktop publishing system. Selection of hardware and software depends on the publication applications the system needs to handle. Following are basic equipment configurations for desktop publishing based on options listed by Tony Bove, Cheryl Rhodes and Wes Thomas in their book The Art of Desktop Publishing:

1. A computer based composition and graphics system with several work stations connected to a typesetter, and possibly a network option. Costs range from $30,000 to over $200,000, plus monthly service and maintenance fees. High-performance scanners add an additional $25,000 and up. Generally, only the professional printer or corporation with high volume and high quality printing resolution require this kind of equipment.

2. A micro computer driving a typesetter or top line laser printer. This configuration costs approximately $30,000 depending on typesetter selection (typesetter cost $18,000 to $100,000), plus monthly maintenance for the typesetter. Scanners add extra cost to this system also. Users of this system trade high cost for lower output capability while still obtaining professional quality equipment. The small print company and medium to large companies with many publishing applications find this kind of equipment adequate for their needs.

3. A personal computer with memory adequate for handling page composition software, graphics software, and word processing software. This system outputs to a laser printer containing memory for handling font conversions. Cost of this system starts at $6,000 and goes up rapidly depending on hardware and software

specifications. A low quality scanner adds $2,000 to $7,000. This option is what most small companies purchase. It is economically feasible and still capable of handling a large volume of good quality print with the option of output by phone modem to professional quality typesetters. Businesses often acquire this computer configuration for multiple applications, priority usage relating to financial or management programs rather than publishing output.

4. A personal computer with limited memory, publishing, graphic, and word processing functions with files handled by diskettes for under $2,000; with output to a low cost laser printer for $3,000. Small companies needing limited document processing and unconcerned about overall print quality use this type of computer configuration. Many individuals also invest in this package for personal publishing needs. (15)

Hardware and software needs depend on the application or the kind of product the user intends to publish. Disk storage, monitor quality, graphics cards, scanners, digitizers and tablets, optical character recognition devices (OCRs), and various specialized graphic and software packages requirements add to the cost.

Professional typesetting companies have used computers, including micro computers, since 1975. Established typesetting companies such as Compugraphic, Mergenthaler, and Varitype worked with various hardware companies to transfer the technology involved in typesetting to computer processes. What has made the difference in DTP is the introduction of laser printers with typesetting capabilities in a relatively low price range.

These printers do not have the resolution of professional quality typesetters; laser printers have a density of type measured at 300 dots per inch, while professional typesetting is

usually 900 to 1200 dots per inch. A professional looking typesetting job requires a minimum of 1000 dots per inch (Bove, Rhodes, Thomas 78). Still, laser printer page quality suffices for many projects that not needing the printing resolution quality or massive printing quantity of, for instance, a magazine or a full-color advertising brochure.

Through a cumbersome production process a 300 DPI laser printer can produce pages with twice the resolution, or with finished text closer to typesetter quality. This process involves enlarging the page 200% on the computer, printing out 'tiles' or sections of the page on standard size paper, pasting the page sections back into the original page, and reducing the pasted-up laser printed page fifty percent on a stat machine. This produces a finished page with resolution of 600 dots per inch.

Another important concern with laser printers is that not all 300 dots per inch laser are the same. The H-P (Hewlett-Packard) LaserJet printer has the memory to print only a quarter of a page at 300 dots per inch, the whole page in seventy-two dots per inch; Postscript equipped printers are usually capable of a full page at 300 dots per inch (Bove, Rhodes, Thomas 75-76).

Two other areas laser printers fail professional quality standards are in printing photographs scanned into the computer and in printing large type sizes, particularly over one inch. These kinds of images often distort in a noticeable and often unacceptable manner. Photographs lose their continuous tone, appearing blotchy and indistinct. Type in large sizes acquires a jagged or fuzzy silhouette.

Businesses obtain desktop publishing packages for several reasons. Typeset pages look more professional. Moreover, they save paper and mailing costs when compared to typewritten pages. More words on a page means fewer pages in a document, fewer pages results in lower printing and postage costs for the printed package. Example A shows a comparison of the paper savings possible when changing a standard typewritten paragraph to a typeset paragraph. Companies mailing large printed publications on a regular basis can save substantially by switching to typeset pages.

In-house typesetting has even more cost-saving advantages. Tony Bove and Cheryl Rhodes, co-founders of the magazine Publish!, discovered these economies when they switched to DTP for typesetting.

> We saved over $30 per page in the production of a bi-monthly magazine by switching from a typesetting service to in-house laser printing. Before the switch we were using PCs for word processing and preparation for typesetting, and saving money by not having the text retyped or coded by the typesetting service (we coded our own text, which is almost as complicated as programming). Switching to PageMaker saved us plenty of time formerly spent coding text files, with the added benefits of laser printing entire pages without doing manual paste-up. Typesetting the laser-printed and proofed pages amounted to an extra $1 per page, with no re-coding and no need for corrections. (Bove, Rhodes, Thomas 2)

For companies with large volumes of publishing needs and unable to afford in-house typesetting equipment, desktop publishing options

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Example A
Typewriter and Typesetter Comparison

can save significant cost at the print shop.

Another reason for the growth in this new industry is simplicity, as most DTP programs are 'user friendly' or do not require training beyond that needed for basic computer operation. Purposely designed uncomplicated, DTP packages target sales towards business rather than computer markets. Easy self-explanatory commands on pull down menus make operation of the software easy for inexperienced computer operators. Simplified page layout provides for another easy application by non-professionals.

As DTP systems continue developing the capability to input directly to professional typesetting equipment, they attract a new market audience in the professionals print industry. This new marketing audience wants the simplicity characteristic of DTP, but it also demands systems with more technical typographical control. Developing these capabilities makes programs more complex, with more command and key-driven controls rather than menu driven selection.

Control over who has access to documents is another issue a company takes into account when deciding on in-house publishing. In-house produced documents that might have an impact on market competition are safer than documents sent out of house for production. Desktop publishing also allows executives to see exactly what the finished page looks like before it is printed, allowing quick and efficient corrections and changes.

Attractively typeset pages look more professional for presentation to clients than typewriter written documents and save

production costs as described above. Computer generated documents store, update, and reproduce quickly, saving time, money, and file storage space. The practicality of DTP offers another reason for its growth as an industry. The development of more advanced publishing packages assures further growth of the industry.

After purchasing basic DTP hardware and software, the user may want or need other enhancements. Additional optional equipment includes full screen monitor, extra graphics packages and possibly a scanner for original art, photographs or other printed sources of graphics and illustrations. Most programs require a mouse for the easiest use of software.

An important requirement of DTP programs is WYSIWYG (what you see is what you get) full page monitoring ability. Screens should display type sizes and styles, graphics, and page layout exactly as they appear on the final printed copy. A large screen, high resolution monitor or a standard twelve inch monitor equipped with an enhanced graphic adaptor is necessary for WYSIWYG screening. Large screens allow whole page, and in some cases, two page viewing of document in a readable text size, representative of type style. Standard screens show one quarter to one third of an actual page, requiring scrolling the screen for different views of the page. Whole page views have 'greeked' type, or unreadable representations of type size and placement.

Another requirement is output to print the page. Quality beyond current laser printer output requires access to a typesetter. There are several DTP packages that have the capability to send commands to laser typesetting equipment. If

this trend continues, DTP will command a greater share of the printing industry. "Sprintout," a service of the Typesetting Service Corporation, recently emerged on the market allowing DTP users to telecommunicate their printed files for laser or typeset printing with return of typeset pages by mail. As the service of rentable or shared use of typesetting equipment develops, it offers more solutions for businesses to handling their own document development with DTP programs.

The problem that faces most users is compatibility of hardware and software; not all software packages work on all equipment, and not all equipment or software work together. Equipment and software must share a common 'language' or coding for compatibility. IBM endorsed Adobe's Postscript, which has the greatest number of supports in type fonts and illustration files. Imagen's Document Description Language and Xerox's Interpress are two other commonly used languages.

Memory capability is a problem, too. Most packages require a computer with 650K RAM, and most laser printers capable of DTP functions need 500K. Choices of hardware and software depends on the application and product production the user needs. The more graphics capabilities and text options required, the greater the memory needed. A command based package is harder to use, but it has more text manipulation capabilities for production purposes and generally uses less memory than menu driven packages. The operation of a scanner requires large memory capabilities as a single scanned page uses up one megabyte of memory, or approximately one diskette (Bove, Rhodes, Thomas 141).

Although users trained in page composition and in text uses and limitations usually develop a superior appearing printed page, it is not a requirement for successful desktop publishing. Some packages have style sheets that help non-professionals get a more professional looking page design. These sheets set typestyles and sizes for headlines, subheadings, and body text. The computer package provides automatic line spacing, letter spacing and kerning (deleting space between letters.) Even with these aids, unskilled users often experience difficulty developing complicated pages as text and graphics placement may heighten or confuse page legibility.

DTP is a production tool, with the design dependent upon the user's skill. Clear communication is the goal of all printed materials. Users mastering design and technical skills use DTP tools more effectively in developing pages with the basic requirement of clarity. The trend for packages that incorporate more professional typesetting capabilities at prices competitive with currently available packages increases the need for specialized training.

The major cost in acquiring desktop publishing results from hardware purchase. Laser printers are not cheap, averaging four-thousand dollars, and the more dots per inch resolution they have, the greater the cost. Most of the laser printers available today have a resolution of 300 dots per inch and are $2,000 to $10,000. A 600 dots per inch laser printer available from Varitype costs $18,000.

"PageMaker," an Aldus' software package, is the current leader in number of packages sold in the page composition program field. According to statistics taken from Computer Graphics, Aldus reports an installed base of 50,000 users as of February 15, 1987 (Burns and Venit, PageMaker 8). The original program ran on a MacIntosh computer, but Aldus developed a PC version. This program, noted for its pull down menus, icons, dialogue boxes, and immense number of add-ons for graphics and fonts works sets the standard for all other packages. Competition, especially from Xerox's DTP package, "Ventura Publisher," motivated Aldus to develop an updated version of "PageMaker" Version 3, a package with more manipulative text and composition techniques comparable to Ventura Publisher.

The number of support programs for DTP functions grows in many new directions. Three dimensional drawing programs are available for the architect, engineer, and product designer. Special graphics programs design business information into charts and graphs, and other programs enable the user to develop original drawings or use illustrations from an art library. Computer generated or scanned original art stored on hard disk or diskette is reusable in many applications either whole or cropped, sized to fit within any space limitations.

CE Software developed a program devoted to producing calendars called, appropriately, "CalendarMaker." The program "GridMaker" by FolkStone Design places grids on original graphic drawing programs such as MacDraw and MacDraft, allowing creation of perspective drawings. There are programs that generate color

slides for graphic presentations and programs giving user access to two hundred colors for laser printing.

Desktop Publishing is an industry in its infancy. Users anticipate many exciting program developments and new solutions for current problems. Continuing interest confirms DTP as a firmly established and entrenched part of the business world. Its adaptability to business needs and its cost effectiveness in meeting these needs are the prime reasons for its acceptance.

Newly introduced software packages offer graphic artists and designers desiring to create their 'own' logo or alpha-numerical characters for a new alphabet font with computer tools. One program, Fontographer by Altsys Corporation, allows the artist to design new type fonts or customize logos which become part of the keyboard functions. In a product evaluation article for Personal Publishing, Steve Herold evaluated Fontographer:

> Fontographer is a powerful and flexible tool. Even if you only use it for an occasional logo or special character, it can quickly repay its purchase price, and enhance your reputation as a creative genius. Graphic designers should find it even more useful. (70)

As these kinds of packages become more available for use in conjunction with DTP, camera ready art production costs lower, causing print media costs to lower. Professional artists and printers find new computer design packages capable of replacing tools and equipment previously needed for identical results at a fraction of the cost.

An evaluation of two popular desktop publishing packages selected from several done in an article for PC Magazine shows the abilities of this technology. Packages capable of working on the same hardware make easier evaluation, so "PageMaker" PC by Aldus and "Ventura Publisher" by Xerox, are compared as both run on IBM and IBM compatible equipment. Magazine editors also selected both packages as software of choice for price and functional capabilities (Burns, and Venit, Desktop 106-107).

"PageMaker" PC version 1.0a costs $695. This package requires 512K (thousand bytes) RAM (random access memory), but it works faster and more efficiently with 640K RAM, DOS (disk operating system) version 3.2 or later, and a 10-Mbyte hard disk. "PageMaker" operates under "Microsoft Windows." "Microsoft Windows" is a system operating package that translates DOS commands for easier accessing of files, activates keyboard or mouse controls, controls drop down menus, control panel, etc.

In February, 1988, Aldus introduced "PageMaker" Version 3. This updated program has yet to go through any comprehensive user testing for functionality, and for this reason was not used in this comparison. Advertising claims this new "PageMaker" has better text wrapping functions, color keying to image options, color separations, style sheets, more and better fonts and scanned image controls (Example B). This new version demonstrates change is the most constant element in computer technologies. This continual change in the industry occasionally makes choosing equipment and software difficult.

Introducing PageMaker 3.0

Three years after inventing desktop publishing, the people at Aldus have just re-invented it. With a new version of PageMaker® dedicated to one simple proposition: freedom of choice.

From the beginning, PageMaker has given people unequalled control over all the elements of their publications. But now we've added many new features that also give you the ability to assemble even the longest documents with a couple clicks of your mouse. With PageMaker 3.0 the choice is always yours.

Here are a few of the new ways you'll have to exercise it.

Autoflow
Now you have the option of flowing text automatically to speed up long documents creation or placing it column by column for shorter, more design-intensive pieces.

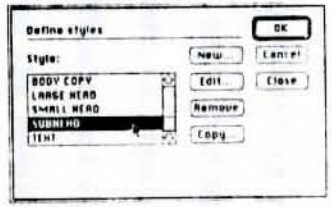
Text Wrap
Our new text wrap function gives you the choice of flowing text through an object, jumping over it or wrapping around it, like you see here.

And when you move a graphic, your text will automatically reflow around it. You can also control the margin between text and image and, with a custom wrap feature, fit text to even the oddest shape.

Spot Color
Mix a virtually unlimited palette of colors based on any one of three standard color models: RGB, CMYK or HLS. Then you can tag any element in the publication with a color by just clicking your pointer on it.

And, when you print your document, PageMaker 3.0 gives you the choice of a single, composite image or separate sheets for each color used. You can even place registration marks in the corners of your separated output for accurate assembly by a professional printer.

Style Sheets
PageMaker's style sheets give you the ability to create and apply style formats, including color, for all your text. And that allows you to reformat an entire story or document in a single operation.



You can also tag text in your word processor, database or spreadsheet for instant formatting in PageMaker. And any style commands from Microsoft® Word files are read directly.

Templates
Since professionally designed templates are now included with PageMaker, it's easy to give every document you create a designer's touch.

You use the templates like blueprints, placing your own headlines, text and graphics according to the designated styles and sizes.

High Quality Fonts
In addition to supporting a wide range of PostScript® fonts, PageMaker for the PC now expands the capabilities of the HP LaserJet Series II and other PCL output devices.

That's because we're including four Bitstream® fonts and Fontware®, a special font generator, at no extra cost.

So you'll be able to create bit-mapped screen fonts from 6 to 72 points in many versatile type faces. PageMaker 3.0 comes complete with bold, Roman, Italic and Bold Italic variations of Dutch and Swiss (Bitstream's versions of Times and Helvetica) along with the Courier and Symbol typefaces. Which will give many people the ability to do even more with PageMaker.

EEEEEEEEEE

Image Control
You can now adjust the lightness or contrast of any scanned image or bit-mapped graphic you place in PageMaker. And if you want to further customize a graphic, you can use one of our built-in special effects, or even create one of your own.

If all this has whetted your appetite to find out more, visit your authorized Aldus dealer today.

And ask for the program that did a number on PageMaker.

PageMaker

[illegible] First Avenue South, Seattle, WA 98104 [illegible]

Circle 5 on reader service card

Example B

'Introducing PageMaker 3.0,' an advertisement, Aldus Corporation, February 1988. Double Page ad reduced 50% from actual size.

"Ventura Publisher" version 1.1 costs $895 and has the same RAM requirements as "PageMaker." Other requirements are a 10-Mbyte hard disk, a mouse, and DOS version 2.0 or later. This package operates under GEM system software from Digital Research. Considered harder to learn than other desktop publishing packages, Venture has more controls and options over text and graphics.

Both packages support a number of printer options and through various bridge options can support other printing options. All programs generally operate more efficiently in operating time and information input with the equipment the manufacturer recommends. Venture General Offices in O'Fallon, Missouri, use IBM's "DisplayWrite IV" as their word processing package of choice. Recently, they acquired a stand-alone desktop publishing system using "PageMaker" software. While "PageMaker" is able to use documents processed on "DisplayWrite IV," each file must convert into the RFT or revised format text form to input into "PageMaker." This made "DisplayWrite IV" difficult and time-consuming to use. Acquiring "WordPerfect" from the WordPerfect Corporation solved this problem as it exports text directly into "PageMaker" with no conversion.

"PageMaker" supports HP Laserjet and compatible laser printers, IBM Pageprinter, Apple LaserWriter and other PostScript laser printers. "Ventura Publisher" supports the AST TurboLaser, HP Laserjet and compatible printers, Interpress printers, Apple LaserWriter and other Postscript laser printers. Both packages also support Epson, IBM, and other dot matrix printers, but not with all program options or in the quality available from laser printers.

Another important function comparison is how many software packages transfer information and in what quality to the desktop package. Each desktop package has word processing capability, but large volumes of text (over one page) need importing from a word processing package that has spell checking and other text handling functions not available from desktop packages.

"PageMaker" imports text from ASCII files from any wordprocessor, as does "Ventura Publisher." This type of file presents a problem as most word processors must convert files into ASCII form before exporting the file. Special functions of underlining, bold or italics type, tabs, etc. do not convert with the text. This makes editing ASCII text files in "PageMaker" harder. Both packages import text and special function commands from the following wordprocessors: "Microsoft Word" by Microsoft Corporation, "Mulitmate" by Ashton-Tate, "WordPerfect" by Word Perfect Corp., "Windows Write" by Microsoft Corp., and "XyWrite" by XyQuest. In addition, "Ventura Publisher" imports the text from "Xerox Write" by Xerox.

Both "PageMaker" and "Ventura Publisher" have basically the same limited graphic ability including the ability to scale and crop imported images, draw straight lines, place and size rectangles with square or rounded corners, place and size circles and ovals, and apply fill screens or shading. Neither package is capable of freehand drawing. Graphics import capability is important where any kind of illustration, graph, chart or image needs including in a document. Following is a list of graphic programs one or both of these programs import files from. The

initial of the program shows which package accepts file input from the graphics program listed: PM (PageMaker), VP (Ventura Publisher).

"AutoCAD" by Autodesk, Inc.: PM and VP. This program is an engineering and design package, capable of developing blueprints, and producing scale drawings in both vertical and horizontal views.

"GEM Draw" and "GEM Paint" by Digital Research: VP. This `paint' program allows the user to bit map the monitor screen in multiple colors (only with a color monitor) in thick or thin lines and shapes. Shapes are available in squares, rectangles, circles and ovals, and textures or `screens' are available for filling shapes or background. The Draw program is a more advanced drafting program for CAD/CAM (computer aided design/composition and markup) applications.

"In*A*Vision" by Micrografx, Inc.: PM. A drawing program with some CAD capability and with a template and symbol library.

"MacPaint" by Apple Computer: PM, VP. The first paint program others emulate. It runs with pull down menus and design icons allowing user to `paint' lines, place boxes or circles, erase them or fill shapes with a number of different screen patterns.

"PC Paint" by Mouse Systems: PM, VP. This is a medium resolution paint program modeled after MacPaint for use on IBM PCs. It is usually bundled with a mouse package.

"PC Paintbrush" by ZSoft: PM, VP. A high resolution paint program usually bundled with a SummaSketch graphics tablet.

So far both packages have demonstrated similar import and output capabilites. Multiple compatibility options make a package valuable because of the many different equipment configurations they offer the user, but the true comparison of desktop packages lies in their text and page formatting capabilites.

In both "PageMaker" and "Ventura Publisher" the program asks for page format delineations before the program allows importing of text or graphics. The page format is an under-sheet beneath the actual page displayed on the monitor. The under-sheet designates margins, columns, column widths, rule lines, borders, text, etc., that are the same for each document page. The grid designations for these options show on the screen but do not print with the page. Pre-selected formats called Style sheets are available with "Ventura Publisher." The program designed format sheets pre-select for the user page design, typestyle and size, tabs, and line spacing.

Another document formatting feature is total document length. "PageMaker" allows up to 128 pages in a document file; "Ventura Publisher" can have as many pages as the system has memory to hold. Each program has the ability to show the page in several views, full page (usually with greeked lettering), actual size, and several enlarged views. The computer monitor's resolution and size control how the page and detail of text and graphics look on the screen.

Some features are unique to "Ventura Publisher." It automatically adjusts text placed on the page to fit column width when the width is changed. It reformats pages faster than any other program. Text flows automatically from column to column and page to page speeding multi-page layout significantly. In "PageMaker," the text places manually column by column, page by page. If you use the wordprocessor for changing text, it requires removing the text from "PageMaker" and replacing the changed text

from the wordprocessor. "Ventura Publisher" has:

> two-way communication between a wordprocessor and Xerox Ventura Publisher letting you combine the familiar user interface and advanced text processing capabilities of your favorite wordprocessing program with the graphics and typesetting features of Xerox Ventura Publisher. Thus, you can add and delete text in Xerox
>
> Ventura Publisher, while still using a wordprocessor for spell checking, search nd replace, and moving large blocks of text (Meyer D-1).

"Ventura Publisher" has the ability to automatically generate indexes or table of contents pages, has widow and orphan control adjusting text flow, and can change type specs globally after the document is completely formatted. It can also `tie' text articles to graphics so if moved to another page the two realign next to each other.

"PageMaker" has the advantage in text importing. It accepts more word processing codes such as typestyle changes, tabs, indents, line spacing and alignment from supported wordprocessors. This can save time in text layout.

Text formatting capabilities are similar in both packages. Differences lie in type size ranges each program is capable of: "PageMaker" has point sizes four to 127; "Ventura Publisher" has point sizes of 1 to 254. This difference for most users is insignificant as type below 4 points is barely legible, and the call for type over 144 points (two inches) is minimal. Each

program has hyphenation ability, reverse type, automatic or manual kerning, tab leaders, tabs.

Important considerations in choosing a package are determining what programs work best with existing hardware, determining text and document production needs and matching these needs to a package's capabilities.

Laser printers are capable of near typesetter quality printing. The technology developed from the photocopier technology combined with laser technology. Both laser printers and photocopiers work on an electrostatic toner-transfer process. Electrically charged toner adheres to the oppositely charged drum, the toner clinging only to the image areas. The toner image transfers to plain paper electrically charged to attract it. Heat and pressure fuse the toner and paper, making the finished copy. The major difference between the two processes is laser printers use laser light to discharge the areas of image on the photo-conductive drum, rather than strong light as in the copier.

Lasers (light amplification by stimulated emission radiation) are light waves that are in perfect synchronized wave pattern. They produce a very strong, thin beam of light, much stronger than ordinary light. This thin, precise beam of light allows laser printers to produce very accurate representations of typestyles, line art, and half tones in exact position.

There are two major problems with laser printers. One is their low resolution of 300 dots per inch, which does not produce good photographic half tone images; the second is alpha-numerical images larger than sixty points often have irregular edges. Font

description has some influence on the printer's image of these larger type sizes (Gelb 23).

Two techniques construct fonts or typestyle images. One technique uses bit map fonts. Usually with bit map fonts, the printer's controller cannot expand the letters properly to change sizes; this requires purchase of more fonts in different point sizes of a typestyle as well as for different styles. The other technique forms fonts through use of algorithm expressed outlines for letters. In this instance, a six-element matrix describes the various outline attributes of the font. The first and fourth elements of the matrix control scaling of the x-y dimensions used in enlarging, expanding or condensing the type face. (Kleper 32) These fonts are superior because one outline used at any size produces smooth letter edges each time. They allow distorting the type to back slant, italics, or allow it to wrap around an object. Laser printers driven by a page description language such as Post-script are capable of using outline fonts. (Bove, Rhodes, Thomas 77)

The second problem with current laser printers is that most use only 8 1/2 inch by 11 inch paper. Using a laser printer for pages larger than this requires printing out two or more laser pages and pasting them together to obtain the right size.

The typesetting industry is responding to the personal computer publishing explosion by developing photo-typesetters that accept commands from personal computers. Itek's Digitek 4000 works with a graphics equipped PC XT or AT as a front end, and the Linotronic 100 from Allied Linotronic works with

Macintosh computers. These large typesetters have the advantage of high resolution (900 dots per inch or more), which gives the printed page a crisp clean look with smooth lines and perfectly rounded curves on types from the smallest to largest sizes (Gelb 20). For most DTP packages, using this king of application requires software and computer compatibility with a typesetter, a requirement still in development for most personal computers.

When printed page quality is important, it is best to have typeset pages. If a typesetter cannot accept text directly from a computer, there are two methods for exporting text from the personal computer into the typesetter. The first option is to re-key the text with the typesetter's special keyboard; the second option requires use of a typesetter able to import disk information from a modem.

Modems are devices used to hook computers up to telecommunication lines to communicate with other computers. They work by converting digital data into an analog such as modulated sound signals (Kroeber and Watson 493). Software controls the modem. Features commonly found in modem control include automatic dialing, originate and answer modes, and protocols. Protocols prevent loss of information from interference on the phone line in use.

XMODEM is a protocol used for both PCs and Macintosh computers. If using XMODEM protocol, computers on both ends of the line must use XMODEM (Bove 67).

All typesetters are beyond the budget of small companies or organizations using desktop publishing for their printing output.

An alternative is a service such as Sprintout.

Sprintout users need telecommunications software which support either XMODEM and a 300, 1200, or 2400 baud modem. Dialing into the network allows the user to send files for processing, receive type fonts, access price lists, send electronic mail, and receive information on Sprintout. Sprintout accepts documents created on any Postscript compatible software and prints the documents by laser typesetting or laser printing, charges your credit card, and delivers your document (Example C). Companies producing a low volume of typeset documents each month find this an economical alternative compared to the purchase of a typesetter and its maintenance.

Laser technology affects scanner technology for computers also. In an article for Compugraphic's CG Magazine, Sylvia Gelb explains how a scanner works:

> A scanner digitizes an image by translating the light reflected from the graphic (image being scanned) into electrical signals. A light reading causes a device called a photodiode to produce an electric current whose strength is proportional to the intensity of the reflected light. Each current value is then digitized; when put together, all the thousands of digitized values constitute an electronic representation of the original graphic. Once digitized and stored in memory, images can be manipulated with powerful graphics software to make necessary adjustments or create special effects. Much control over the final output is possible because graphics can be cropped, sized, reoriented, adjusted for contrast or tone without having to start the reproduction process all over again. Expensive stat cameras, darkrooms, and paste-up are all bypassed through the use of the scanner. (18)

With Sprintout You Can Be Your Own Publisher.

Now you can be your own publisher by preparing text and graphic documents on your Macintosh or IBM-PC,

and then send your files directly to Sprintout for overnight processing of laser typeset proofs or laser printed copies.

Sprintout gives you the resources to produce the highest quality typeset output at a fraction of the traditional cost of typesetting.

Telecommunications: You can access the Sprintout network by using telecommunication software which supports either XMODEM or MACBINARY; and a 300, 1200 or 2400 baud modem. Dialing into the network will allow you to: Send your files to be processed; receive type fonts; access price lists; send electronic mail; and also receive any information regarding Sprintout.

Sprintout offers a choice of document processing:

Laser Typesetting: These documents will be laser typeset on resin-coated paper at a resolution of either 635, 1270 or 2540 lines per inch.

Laser Printing: These documents will be laser copied on plain paper (bond stock) at a resolution of 300 dots per inch. The output of Sprintout's laser printer is of the same quality as Apple's LaserWriter.

Upon the initial access to the Sprintout network, you will be prompted to register as a new Sprintout user; your name and address; how to charge your work (VISA, MasterCharge, AMEX); and how to deliver your documents. There will be a one time fee of $60 which will allow you to become a member of this 24-hour, 7 days a week document processing service. This registration fee also includes typesetting the first six pages at 635 lines per inch at no charge.

Processing your documents with Sprintout is *fast*, and saves up to 90% of the costs to produce the same material by the traditional publishing methods.

Simply create your documents on your Macintosh or IBM-PC using any Postscript compatible software such as: Pagemaker, Ready-Set-Go, or Word, then dial the Sprintout network at **1-800-367-7025** and the special user-friendly software will do the rest.

For further information, call or write: SPRINTOUT, Typesetting Service Corp., Fifty Clifford Street, Providence, RI 02903-3886 (401) 421-2264.

SPRINTOUT

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Example C

'With Sprintout You Can Be Your Own Publisher,' an advertisement, Typsetting Service Corporation
Full page ad is reduced 74% to fit.

The problems involved with using scanned images, already mentioned, is the amount of memory needed to store scanned images and the cost of good quality scanners. The benefit of scanners is the ability to use images already printed on paper. A scanned and saved image is capable of cropping and manipulating any number of times for a multitude of different projects and needs.

A company deciding on desktop publishing for producing a newsletter has many choices of equipment depending on the quality of newsletter wanted or on other document production requirements the system must perform. Equipment compatibility with many hardware and software options offers the best opportunity for future equipment or program additions. If the desktop system produces only the newsletter, the program choice depends solely on newsletter format needs. The following questions help define the equipment needed: Are charts and graphs a regular feature? What are the type setting requirements? Is the newsletter look desired closer to a letter, magazine or newspaper format? What do newsletters of competitors, if any, look like? How are these newsletters and/or the company producing them perceived by the target audience? What format capabilities are needed? These types of questions help the potential DTP package buyer focus on what they need from software and how elaborate the equipment needs are.

For any company or individual presently using computers or planning on purchasing a system soon, desktop publishing is the future of publishing. Speed and convenience accelerate the change to electronic publishing. Experienced DTP users can format a page

with text and graphics in minutes. Electronic storage of information is efficient, both in time and space savings.

As the industry evolves, compatibility with diverse equipment will develop including many that affect printing processes. One foreseeable change alters preparation of color pages for printing. Full color laser printers with higher resolution and the ability to produce color separations eliminate many steps now necessary in preparing color photographs for four color process printing. Transmittal of a newsletter through electronic mail directly to another computer terminal is a second possible change. This future alternative delivery system would bypass paper printing and mailing altogether. Another speculative possibility is animated graphics for newsletters using the terminal to terminal delivery system. What ever the future holds it is clear desktop publishing has an important place in business communications.

C. Newsletter Typography and Design

Design is another important factor in newsletter production. Decisions made on the visual appearance set the tone for the whole design process. In writing about magazines, Jan V. White said, "Styling is the permanent, underlying, all encompassing visual vocabulary" (White 4). The same is true for newsletters, which often emulate magazine page format.

Text style is one of the most important design decisions. Typestyle refers to what the typeface actually looks like, its silhouette. There are thousands of typefaces. Each style has its own look and delivers a subtle, sometimes not so subtle, message about the communication sent. Bold and brassy, elegant and refined, dignified, stately, businesslike, playful are descriptive tags applied to typestyle. With selection of a typestyle the message inherent in its style is delivered along with the verbal message to the reader.

The style of type, whether serif, sans serif, decorative, italicized, bold, etc., and how it relates to the page layout determines the visual image the message sends. Visual images consistent with the verbal message enhance the reader's understanding of the message. Certain styles give certain images to the reader. Very decorative, italicized typestyles are, for instance, appropriate for invitations or announcements but inappropriate for other kinds of messages.

Different styles of type on a page add interest to massive bodies of text, emphasize certain words or differentiate masthead

from headlines from body text, but each style must work with the others to produce one cohesive page. The page layout can use more exotic or bold typestyles where attention of the reader is needed, or to slow down reading speed making the reader focus longer on the message. Decorative, italic, and bold types, especially in large sizes, attract the attention and are frequently used for titles, headlines, subheadings and words needing emphasis.

The key to successful use of special type effects is their limited use on the page layout. A general rule of thumb most designers learn in basic design classes is no more than three distinctive typestyles on a page.

Typestyle, size, and weight selections give focus to the page, balancing the many visual elements of the page. Different weights of type can vary the tone of the page from all black to a variety of grey and black tones.

Example D illustrates how this technique helps design a page. Michael Beaumont in his book Type Design, Color, Character and Use uses this example from the June, 1983, issue of U&l.c. as an illustration (38). In the design on the left the use of extra-bold type for the title gives a dominant focal point while helping the illustration and small volume of text, also in bold type, form one cohesive design. The body text done in a normal weight of type forms a grey background for the headline and graphics and improves readability of the text by allowing text division into easily read sections with semi-bold headings. The typographical changes from light to dark make this design more eye-catching than the one on the right. According to Beaumont:

> The designer has moved away from the conventional approach to layout, but has still obeyed the basic design priorities, ie. **Priority 1**. Headline: The attention grabber. **Priority 2**. Illustration: The means of developing interest. **Priority 3**. Copy: The message. (38-39)

It is important for design unity of the whole published document that overall body text remain the same shade, light, or dark. Variations from this overall body text in size and weight of type helps determine text importance on the page for headlines and subheadings. These elements in type add interest to a page, and often determine whether the viewer reads the page.

Other issues in selecting type, besides style and weight selection, are point size and letter, word and line spacing, as the size and spacing of type also affects the page's look. Types measure in points, 72-points equalling an inch. Points measure height of type and size of leading, or space between lines. Most readers prefer to read a type of medium thickness in 9-to 12-point serif or non-serif typeface for large bodies of text. Type set smaller than 6-points is very difficult to read.

Leading determines the legibility of type lines. To calculate leading, multiply point size of the type by twenty percent and then add this product to the point size. Some typefaces may need extra leading because of their boldness or decorative effect, so visual judgment often over-rides the formula.

Eample D

An example from Type, Design, Color and Use by Michael Beaumont
from an illustration in U&l.c.
Page reduced 74% from actual size.

Letter spacing is the maximum distance the typesetter allows between letters when setting a line of type. Usually, letter spacing controls insert space into lines of type so both side margins justify, but spacing also has an impact on the readability of the typeset line, too much spacing stopping the eye and slowing reading speed. Examples E and F visually demonstrate how letter spacing affects the readability of type. Word spacing is applied with the same goal as letter spacing to enhance comfortable reading.

Kerning is the opposite of letter spacing and allows space between letters to shorten. This is usually not necessary until type size reaches about 14-points, when normal spacing seems to leave the letters too far apart. Kerning becomes increasingly important as type size increases beyond 72-points. As type sizes get larger in point size, each letter needs to move closer together for visual clarity.

When type expands in length because of either font style or interletter point spacing, leading has to increase for easier reading. Leading also allows columns with unequal number of lines to share the same base line by changing the amount of space allowed between each line in the separate columns, giving the total page a clean and finished visual appearance.

As a reader's eye scans a line of type it does not read word by word but comprehends sections of the line at one time. The reader's eye tends to jump in even units, and if word spacing inhibits these visual jumps, reading comprehension is slowed down dramatically. Many readers give up reading poorly spaced text

I will now show you how, by varying the letter spacing, legibility is improved or decreased. This example is set in 12/13pt *Caxton Light* with standard letter spacing.

Fashions come and go. This certainly applies very much to typographical design, and in particular, to letter spacing. When computer-generated setting first arrived and the advantages of its infinitely flexible letter spacing were recognized, very tight letter spacing, particularly for headlines, soon became fashionable. Now, however, the movement is in the opposite direction, with many designers opting for an extremely open style of typography reminiscent of the 1950s. This control over letter spacing means that you can alter the tonal color of your body copy subtly by varying the standard spacing. This is done by adding, or subtracting, units from the set width. But all designers must remember that, when all is said and done, we are communicators. Our messages have to be read and understood. Letters that are too close

12/13pt Caxton Light (standard letter spacing)

I will now repeat the previous passage, but this time reducing the set width from its standard setting to -1 of the standard.

Fashions come and go. This certainly applies very much to typographical design, and in particular, to letter spacing. When computer-generated setting first arrived and the advantages of its infinitely flexible letter spacing were recognized, very tight letter spacing, particularly for headlines, soon became fashionable. Now, however, the movement is in the opposite direction, with many designers opting for an extremely open style of typography reminiscent of the 1950s. This control over letter spacing means that you can alter the tonal color of your body copy subtly by varying the standard spacing. This is done by adding, or subtracting, units from the set width. But all designers must remember that, when all is said and done, we are communicators. Our messages have to be read and understood. Letters that are too close or too open, designed for the sake of

12/13pt Caxton Light (-1 letter spacing)

The previous style works well and is popular for advertising setting, especially with serif typefaces. It does not always work so well with condensed sans serif faces because the vertical stress becomes too strong, as the following short paragraph illustrates. It is set in *Univers Medium Condensed*, -1.

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12/13pt Univers Medium Condensed (-1 letter spacing)

Example E

An example from Type, Design, Color and Use by Michael Beaumont.
Page reduced 90% from actual size.

Now look back to the example in *Caxton Light* and compare it with this piece, which shows what happens when space is over-reduced and legibility sacrificed. The set width is now reduced to -5. The individual characters are now "kissing," creating a rather unpleasant style of setting.

Fashions come and go. This certainly applies very much to typographical design, and in particular, to letter spacing. When computer-generated setting first arrived and the advantages of its infinitely flexible letter spacing were recognized, very tight letter spacing, particularly for headlines, soon became fashionable. Now, however, the movement is in the opposite direction, with many designers opting for an extremely open style of typography reminiscent of the 1950s. This control over letter spacing means that you can alter the tonal color of your body copy subtly by varying the standard spacing. This is done by adding, or subtracting, units from the set width. But all designers must remember that, when all is said and done, we are communicators. Our messages have to be read and understood. Letters that are too close or too open, designed for the sake of fashion at the expense of legibility, do NOT make good typography.

12/13pt Caxton Light (-5 letter spacing)

We can, on the other hand, move the other way on the setting scale and increase the set width. This example represents +1 spacing.

Fashions come and go. This certainly applies very much to typographical design, and in particular, to letter spacing. When computer-generated setting first arrived and the advantages of its infinitely flexible letter spacing were recognized, very tight letter spacing, particularly for headlines, soon became fashionable. Now, however, the movement is in the opposite direction, with many designers opting for an extremely open style of typography reminiscent of the 1950s. This control over letter spacing means that you can alter the tonal color of your body copy subtly by varying the standard spacing. This is done by adding, or subtracting, units from the set width. But all designers must remember that, when all is said and done, we are communicators. Our messages have to be read and understood. Letters

12/13pt Caxton Light (+1 letter spacing)

Extra spacing can work well but, as with reduced spacing, it can be overdone. Setting the letters to +5, for example, as shown below, creates an unpleasant effect. This example does not read well because of the openness of the letter spacing compared to the closeness of the line spacing.

Fashions come and go. This certainly applies very much to typographical design, and in particular, to letter spacing. When computer-generated setting first arrived and the advantages of its infinitely flexible letter spacing were recognized, very tight letter spacing, particularly for headlines, soon became fashionable. Now, however, the movement is in the opposite direction, with many designers opting for an extremely open style of typography reminiscent of the 1950s. This control over letter spacing means that you can alter the tonal color of your body copy subtly by varying the standard spacing. This is done by adding,

12/13pt Caxton Light (+5 letter spacing)

Example F

An example from Type, Design, Color and Use by Michael Beaumont.
Page reduced 90% from actual size.

before perceiving the message. The fewer jumps the eye has to make across a line increases the speed of reading. Michael Kleper, author of The Illustrated Handbook of Desktop Publishing and Typesetting states:

> These facts have had a direct and quite meaningful impact on the use of type. Since the fewer fixations the eye must make causes greater speed of reading, it makes sense to use a minimum of space between words (word space) and to avoid wide or extended typefaces, which are now known to reduce reading speed and to cause eye fatigue. (Kleper 29)

A key to getting a message read, then, is control over readability through typography.

One of the major differences between expensive professional page composition systems and personal computer page composition packages for setting type is typographic control or the ability to control the spacing of type. Controlling this spacing gives the page composer more control over the look and readability of the text in the finished publication. Control over these elements helps the typographer set the page to its maximum readability level and is often a judgmental determination on the part of the typesetter.

Most DTP packages have automatic leading and kerning text. Better DTP packages have limited user controlled kerning and leading. One direction DTP programs expands into is better typographical control as increasingly professional designers and printers use DTP for page composition and demand these typographic controls.

There are several guidelines for good typographical use. Correct leading measure for point size of type is one guideline already mentioned. Other guidelines include the following:

*Use a line spacing value that is approximately 20% of the type size. If the type measures 10 points, then an appropriate line spacing value would be 12 points (20% x 10 points = 2 + 10 point type = 12).

*The width of word spaces should be kept to a minimum.

*General reading matter should be typeset in a size between 10 and 12 points.

*Where appropriate, the typeface should match its intended use.

*Words in headlines should be arranged according to their content, as well as their length.

*Use italic and boldface to emphasize and to help organize logical units of text.

*Avoid using ornate typefaces for text matter.

*Don't use a line measure that is either too short or too long.

* Don't use all-capital composition in text material.

*Don't set blackletter, script, or ornate typefaces in all-capitals.

*Avoid excesses in both letter and word spacing, and eliminate letterspacing altogether if possible.

*Don't use condensed or expanded typefaces for reading matter. (Kleper 35)

Overall design consideration is important, too. Page and document design deals with space and how its arrangement; the overall

value, or lightness and darkness gradations, the proportion of white space to dark space; the proportion of text to graphics; and shapes and lines used on the page, the use of color.

Many of these decisions are beyond the scope of a person who lacks graphics or design education. Some desktop publishing packages take this into consideration and have pre-formatted page layouts easily manipulated by the computer operator.

Another system uses a grid for designing a document. A grid is an 'under-sheet' used in preparing printed pages. A grid has horizontal and vertical lines setting the placement of graphics and text. (Nelson 169) The most common Western space delineation is a rectangle arranged in a two to three ratio, which is the classic proportion or 'golden mean.'

> In designing publications, we also have the inspiration of the 'golden mean' of the fine arts. It provides that the lesser dimension in a plane figure is to the greater as the greater is to the sum of both; the dimensions are i a 0.616 to 1.000 ratio, roughly 2 to 3 or 3 to 5. We base page size - of typing sheets, of books, of magazines - more or less on this ratio. We find the ratio more interesting, less tiresome, less obvious than the simple 1 o 1. We avoid 2 to 1, 3 to 1, and 4 to 2 ratios because they are merely variations of 1 to 1. They divide into equal portions. We avoid cutting pages visually into halves or quarters. We avoid running pictures that are perfectly square because the ratio of width to depth is 1 to 1. (Nelson 38)

Professional publishers commonly use grid applications to speed up page layout and still keep a high standard of quality for each page layout. Most personal computer publishing packages allow the

user to design their own underlying grid pattern for production purposes.

White space is an often overlooked element of visual page layout, but it defines type character, line, or photo for visual clarity. If the image is the positive space, or the space needing recognition, then the surrounding white space is negative space. White space can do more than just delineate images if used wisely. Large blocks of white space can give the eye a place to stop on a busy page or help give a balance to heavy dark areas. A change in the amount of white margin space around one article on a page gives that article a sense of importance. White space also helps the eye flow across a page to places of visual importance.

Jan V. White suggests in Editing by Design that "white space must have a definite, utilitarian purpose. It should have clearly defined geometric edges, give the eye a resting spot, help organize material on the page and help tie successive pages together by repetition of identifiable area" (47).

Color can add distinction to a publication, but it is not as effective for type as black on white, which has the greatest possible value difference. Four color process is the method for producing color photograph in any publication. It is an expensive printing process that can enhance or obscure the printed message. The purpose for inclusion of full color printing in page layout must justify the production cost involved.

Color added in color runs is just as effective for certain document enhancements. Each color added to a publication is another run through the printing press, adding cost to the

finished package. When used effectively, though, color can articulate details, add emphasis, become a background or a space organizer.

Color also has cultural meanings and emotional qualities inherent in their use. For instance, red has connotations of danger, anger, hot, blood, horror, war, the devil, hell and damnation; it also is the color of excitement, basics as in primary, love, energy, and Christmas. All colors seem to have different visual meanings. Analysis of the message in the text and the message inherent in the color selected helps coordinate visual and written meaning, enhancing the message's ultimate transmission.

With all these design considerations, a company wishing to produce the best in-house publications possible should hire a person with design training for document production. Gaining the readers' attention is a major hurdle in getting a message read and having well designed professional page layout helps overcome that obstacle.

Howard Penn Hudson, founder of the Newsletter Association of American, describes the importance of design in newsletter publications.

> Having reviewed thousands of newsletters which have filtered through this office, we come to these conclusions: 1. Regardless of content, some newsletters are more attractive, "more readable" than others. 2. Some typefaces are more pleasing than others. 3. Some headings express better the subject and flavor of the letter than others. 4. Some headlines and handling of body copy "grab" you more than others. 5. Some color combinations are more

inviting than others. 6. Some printing is better than others. When we speak of graphics for newsletters, we are not thinking of coated stock and four color illustrations. We are speaking of doing the most effective job within the given limitations. . . (48)

D. MEGASOURCE, THE COMPANY AND ITS MARKET

MegaSource is a highly specialized software company. Their product is a pharmacy package sold exclusively to hospitals wishing to automate their pharmacy. Started in 1983, Megasource jumped from seven accounts in 1986 to forty-five in 1987. Within the next five years the company hopes to gain thirty-five percent of the total market (Carney, personal interview).

This highly specialized market developed from several influences - - the major influence is the tremendous advancements in drug therapy and the proliferation of drug types. One aspect of computerizing the hospital pharmacy is keeping track of what drugs each patient is taking.

When a patient takes several different drugs, there is always the possibility of harmful drug interactions for which the doctor, pharmacist and hospital are liable. The number of drugs and their use in patient treatment is constantly increasing, causing more difficulty. Computer programs warn the pharmacist when a new prescription is likely to interact harmfully with other drugs the patient is taking, reducing chances of mistakes.

Another important influence is the growing governmental control and regulations over prescribing and distribution of drugs. Federal reports needed are the Narcotics Control Report, Controlled Substances Report, Medicaid and Medicare Patient Prescription Report (needed also at state level). All these reports are time-consuming in manual tracking of information and

writing the report. Computers can greatly simplify the generation of these reports, saving time and labor.

The need to contain costs influences the hospital's increasing need to automate. Hospital operation costs have skyrocketed in all areas. Medical malpractice insurance costs have risen astronomically. Fear of malpractice litigation forces doctors to protect themselves by requiring more tests for backing up their diagnoses. Employee benefit and related costs have risen. Government regulation and reporting adds to hospital costs as do new and expensive treatments.

Keeping costs down in the pharmacy and the increasing load in patient drug therapy care has made automated pharmacies a practical and important step many hospitals take. According to the MegaSource system description publication Rx Time and Accuracy:

> The computerized hospital pharmacy is able to overcome many of the problems resulting from labor intensive operation. Activities such as patient profiling, cart fill, generating bag and IV labels, and medication administration reporting consume a disproportionate share of the time resources of the pharmacy. These activities are among those that can be automated such that only minimal manpower is consumed, freeing the pharmacist to more effectively and efficiently pursue other clinical and operational activities. The pharmacist, with the help of a computerized system, has the capability to perform pharmacokinetics analysis, hyperalimentation and drug interactions. At the same time the computer database enables better inventory control, faster billing, comprehensive drug utilization reports and improved decision-making. Overall, patient care is improved, costs are controlled and management information is more readily available ("MegaSource Approach" 3).

Megasource positions itself in the automated pharmacy market through these marketing philosophies:

1. The product is a pharmacy system, not a complete hospital information system. MegaSource feels that

> hospital support areas such as the pharmacy operate more effectively on independent systems. The high volume requirements of the pharmacy plus the need to perform clinical analysis can degrade the overall performance of a central system. The independent system can perform these functions without adversely affecting other areas of the hospital. (MegaSource 4)

2. The MegaSource system operates on a wide range of hardware, allowing the hospital to utilize what best fits their needs from micro-computer to mainframes.

3. MegaSource offers a basic system design that allows tailoring of its application to each hospital's specific requirements.

4. MegaSource is an integrated hardware, software and consulting organization, providing a single vendor solution.

5. MegaSource continues to offer their users support for all levels of pharmacy operation, operator training, technical support and customized programming after the initial installation and training process.

Marketing efforts start with phone surveys (telemarketing) to identify prospects. Hospital on- site visits for system

demonstration follow leads generated through telemarketing sales methods. Contract negotiations are often slow making for a long sales cycle. Some leads generate from magazine or H-Pak requests for information, but these are generally poor quality leads.

There are approximately 6,500 hospitals in the United States according to the American Hospital Association. Of these, 3,780 are hospitals of one-hundred beds or more, and fourteen percent of these have automated hospital systems. Of the remaining hospitals seventy-five percent are looking to automate in the next few years (Dorenfest, letter). This limited market is well-documented, and listings for hospitals and specific personnel update annually through several sources. One source for pharmacy personnel is the American Society of Hospital Pharmacists.

Megasource's product in this field is superior to its competitors for several reasons. The product has the ability to run on a variety of different hardware options. MegaSource was the first system able to run on a local area network environment. The software is more sophisticated than its competitors, giving it a marketing edge. The system has bar code capabilities, a desirable feature for hospital pharmacies, as this allows for faster and more accurate input of data.

The decision for MegaSource to develop a newsletter is based on several company goals:

1. The newsletter will help create name recognition in the pharmacy industry.

2. The newsletter will help establish the company's expertise in the automated pharmacy industry.

3. The newsletter will communicate with current users regarding new product development for promoting future sales.

4. The newsletter will showcase installed systems, giving prospective clients indirect product endorsement via the showcase hospitals.

5. The newsletter will expand avenues of communication with prospective clients.

6. The newsletter will aid in remaining in contact with clients in the automated pharmacy decision making process.

7. The newsletter will produce a 'take- away' publication when the company participates at meetings and conventions. (Carny, personal interview)

Another aspect of the decision to produce a newsletter is the limited avenues for communication available with MegaSources's target market audience. Their budget for public relations and promotion is limited because of expenses involved in the actual sales and contract cycle. Competing in a highly specialized industry with limited advertising avenues is a challenge the company intends to overcome. The following are the current channels available.

Magazines: Computers in Healthcare, Modern Healthcare, Healthcare Computing, Pharmacy Times, The ASHP Journal (American Society of Hospital Pharmacists). Costs average $1,000 - $1,800 per page for black and white advertisements. Magazines tend to be poor in terms of leads so advertising is done more for name recognition. MegaSource up to this time has not advertised in magazines because of the cost compared to the limited effectiveness factor (Carney).

H-Pak (A direct mail package with return postcards for information): H-Pak results in few quality leads, but is inexpensive. MegaSource used H-Pack on a trial basis. The company determined that leads were better than magazine advertising and deemed worth the cost, but not on regular basis, maybe once a year.

Healthcare Buying Groups: MegaSource has contracts with two national companies that regularly promote the product to their members : Sun Health - a cooperative buying group; and Psychiatric Institutes of America - a group of for profit rehabilitation hospitals.

MegaSource serves a highly defined target audience. The newsletter mailing audience is current MegaSource users, and hospitals in current contract negotiations. It is also a carry-away for convention booth use at the following conventions: the Annual American Society of Hospital Pharmacists Convention, the Midyear American Society of Hospital Pharmacists Meeting, the American Society of Hospital Pharmacists Computer Conference, and selected state pharmacy conventions.

If Megasource wishes to expand mailing to other hospital pharmacies, addresses are obtainable through the listing in The American Hospital Associations Guide to the Health Care Field.

Another source for marketing information for MegaSource is the Dorenfest 3000+ Database. This database surveys 3,144 community hospitals of over one-hundred beds in the United States. The survey process is constantly updated providing current and accurate information. Included in this updating are data processing steering committee names and titles, annual hospital expenses and fiscal year end date, affiliation with any hospital alliance, a hardware operating system and how it was bought or acquired, application indices (reports indicating the installed

base and or buying plans for hospitals in each of twenty-four different areas), and vendor hardware report. This service is expensive, costing $125,000 for a full service license (Dorenfest, letter). MegaSource currently subscribes to this service, finding it useful in their marketing strategies and in contacting prospective clients.

E. NEWSLETTER PROPOSAL

The newsletter for Megasource needs a professional, polished look; published either quarterly or semi-annually. This time frame allows ample time for collection of photographs and written materials for the articles. Article content needs balancing between editorial comments such as a message from the company about government regulation changes and their effects on the MegaSource system and informative news articles about industry happenings. Suggested topics are on company or industry news, pharmaceutical concerns, better pharmacy management, and information to help the user understand the program better. Another possible source of articles is from the users' group.

Every computer system tends to develop groups of users who share information, and MegaSource's product is no different. Providing communication between users would greatly enhance the newsletter's appeal, plus involve the reader in direct participation in the newsletter production process, making the newsletter 'their' newsletter as much as MegaSource's. This would attract non-MegaSource users readership as an opportunity to discover what current users feel about the product.

One possible problem is user's negative comments, but this is a possible advantage. It gives MegaSource feedback from the users on product problems allowing fast company reaction, and shows that MegaSource has so much faith in its product that it airs its problems openly. Since MegaSource controls the publication, solutions to any problems are effectively 'solved' in

the same publication. This gives the company the appearance of concern for its users and in control of any problems that might occur.

Other kinds of articles to include are a listing of new users and articles about established users or new users. Photographs accompanying these articles would enhance the appearance and appeal of the newsletter.

Articles might generate from company personnel such as salesmen or programmers, users and outside industry sources. Editing articles for accuracy and conciseness enhances the newsletter as an intelligent, informative news source. A marketing message included in the newsletter helps reinforce it as a vehicle for increasing sales as well as good public relations.

Receiving articles in a timely fashion is one problem most newsletter productions face. Small companies like MegaSource that can benefit from newsletter production often find it hard to get articles written. Right now, all of MegaSource's personnel use their time for product sales and support. Hiring an additional part-time employee for editing and producing the newletter is the solution to this problem, although all employees need encouragement to submit either articles or ideas for articles. Building an information network within the company helps define article and regular column content. Source people within the network act as consultants for article and column generation.

The front page needs a lead-in article consisting of three hundred fifty to seven hundred words plus a photograph when possible. For an article between three hundred fifty and five

hundred words, a type point size of twelve point type fills the space requirements; between four hundred and seven hundred words, a ten point type is necessary. The newsletter staff decides the topic for this article from topics submitted by the company's president and other employees.

A second article on industry or company news of five hundred words is a front page option. When there is not sufficient information for a second news article, a current or new client hospital pharmacy profile article fills this space. The profiled pharmacy supplies information for the article through a telephone interview, and the hospital's public relations office supplies additional information on the hospital plus a photograph of the hospital or pharmacy staff. Articles on new hospital's pharmacies installing the system use the same information sources as detailed for user hospital pharmacies.

An article on special features of the software and problems users commonly run into in operating the software is a regular feature as an educational column by MegaSource's Director of Education, Ann Schwaub. This article runs between two hundred and two hundred fifty words. It is based on questions Ann is frequently asked and the answers to those questions or on features unique to the MegaSource software.

"MegaSource Viewpoint" a regular editorial feature in each issue, uses a different employee each time. This person writes a short two hundred fifty to three hundred fifty word article about the company and its position or concerns on current industry topics.

A regular column called "In Brief" would compile short listings of current industry news. Employees gather this news from clippings of articles found in their professional journals and newsletter staff obtains permission for re-printing or re-writing the article. Word content is two hundred to three hundred words for the whole column.

Keeping article requirements to short word count guidelines encourages employees to write articles or submit ideas to the newsletter staff. A newsletter mock-up helps determine article length and space allowances. A simple word count method calculates total words needed.

Albert C. Book and C. Dennis Schick describe an easy word count method in their book Fundamentals of Copy and Layout (52). This method is based on the fact that an average word takes up 3 ems of any given type size. An em is the square of the point size, so a ten point size is thirty ems, a twelve point, thirty-six ems. Line length converts from inches to points by multiplying the inch measure by 70 points (70 points per inch). Dividing this product by the em square gains the number of words per line, multiplying the number of words per line by the total number of lines gives the total number of words.

Estimating word count for each article needed for the newsletter at ten points and at twelve points establishes the minimum and maximum word length.

The physical appearance of the newsletter is as important as the content. It must present the same professional appearance as the tone of the articles, without appearing stiff or boring. As

added color helps establish interest, this suggests printing the newsletter in at least two colors. Black text with aqua currently used on their literature is a possible selection for the newsletter, and helps establish company's image. Aqua is a color already culturally established as fresh, clean and healthy, as symbolic of water, and has associations as a 'medical' color in pharmaceutical packaging (Beaumont 84).

Alan Swann, a successful designer and teacher, suggests the main body text is one color, with the second color "used in the main title of the front page and to emphasize other elements such as color tones behind photographs" (116) A heavy, mat texture paper in white suggests an attractive and professional appearance, and reinforces the overall tone of a strongly established, competent and professional business.

One of the first steps in designing a newsletter is determining a format. Format information includes the number of columns on a page, typestyles, general article placement, or the general 'look' of the newsletter. For MegaSource, two columns of unequal width varied with two columns would add interest to the overall newsletter layout without appearing too contrived. This also allows easier placement of articles of varying lengths on each page as columns of unequal width are less formal than equal column widths and can modify easier to accommodate text blocks, or even number of columns.

Three first pages (examples G, H, and I) developed for the MegaSource newsletter are variations on two or three column formats, each one composed on "PageMaker." Each first page has a

MegaSource On Line

A Quarterly Publication

First Quarter Issue, 1988

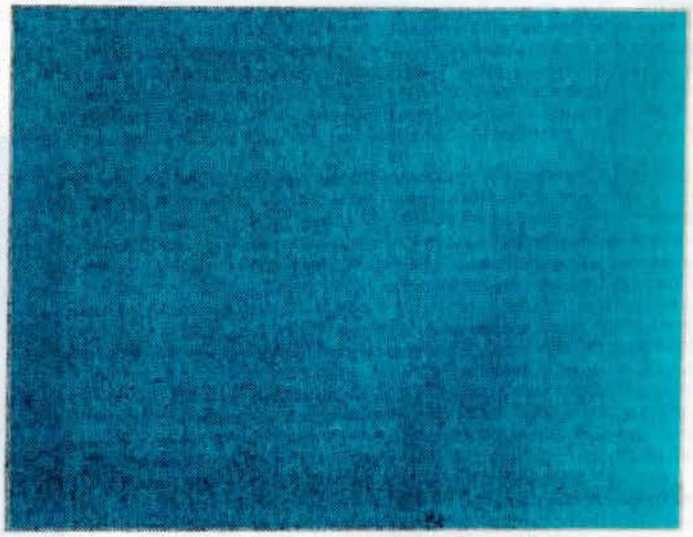
MegaSource First International Vendor

With the April signing of an exclusive contract with the government of France, MegaSource now has its third international site. Eventually this contract will add up to four hundred French hospitals to the list of MegaSource users.

In 1987 MegaSource signed contracts with two international sites. The first was the King Faisal Specialist Hospital. King Faisal Specialist is a 550 bed hospital located in Riyah, Saudi Arabia. An IBM/4341 mainframe computer runs the system using the MegaSource Unit Dose and IV programs.

Director of Pharmacy at KFSH, Steve Sherling and his staff recently attended training classes at the MegaSource Corporate Headquarters in Birmingham, Michigan. During this training session Steve indicated KFSH chose the MegaSource System because of "the company's ability to support the system half way around the world, and for the continued programming upgrades enabling our hospital pharmacy to keep up with the latest changes in pharmacy technology."

The second of MegaSource's international sites is the Hospital Municipal de San Juan in Puerto Rico. As a result of the signing of this facility and with the help of Abbott Labs, MegaSource has translated the Pharmacy Management System into Spanish. With the recent signing of MegaSource system as the exclusive system for French Hospitals, a French language system is in development. This makes MegaSource the first truly international pharmacy system vendor.



Dave Carney, President of MegaSource with French Minister of Health Rauol LaBlanc

AMI Signs Contract

For-profit hospital chain, American Medical International, after an extensive review of more than twenty pharmacy management systems has selected MegaSource as the prime vendor for providing the ninety plus AMI hospitals across the United States with pharmacy systems.

In choosing MegaSource, AMI spokesperson Bob Bowels commented, "MegaSource offered the most complete pharmacy system available, from the ability to provide 'last path' order entry to the ability to track drug utilization review information."

Mr. Bowles indicated that implementation of the system would begin within thirty days at several sites in California, Missouri and Texas. All AMI hospitals expect to install by late 1990.

The signing of AMI brings to six the number of corporate and buying group contracts signed by MegaSource this year, and brings to nine the number of hospital contracts won by MegaSource.

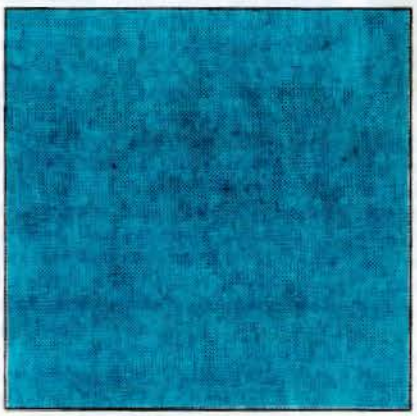
These contracts represent a total of 17,000 licensed beds in 170 hospitals throughout the world making MegaSource the largest standalone pharmacy system vendor anywhere.

Example G
(Reduced 74% from original size)

MegaSource On Line

A Publication of MegaSource, Inc. First Quarter, 1988

LMS Up and Running



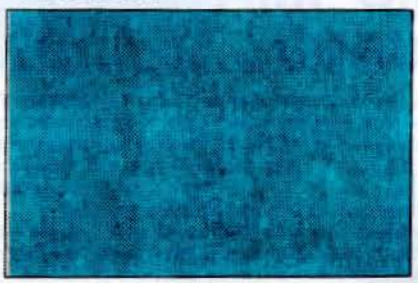
MegaSource's new automated Laboratory Management System has successfully completed its test installation at Northbridge Hospital in Dallas, Texas. "This system has substantially reduced our laboratory test error while reducing overall operations costs," commented Kent Johnson, Director of Forensic Medicine at Northbridge in a recent interview. "Laboratory Management System is a remarkable tool. After using it for three years, the entire lab staff is still enthusiastic over what is accomplished. Costs and staffing needs are down, testing speeds and accuracy is increased, and paper work is virtually eliminated. Better patient care is the end result."

Laboratory Management System is compatible with any IBM computer or clone your hospital is currently using. "This system can interface to any lab testing machine currently used in hospital laboratories," says Dave Carney, President of MegaSource. "Laboratory Management System effectively reduces error in both clinical applications and billing while speeding the result time, and efficiently merges multiple-test results reporting. We are extraordinarily pleased with the system's trial at Northbridge and think the system is a asset to all hospital lab procedures."

This system rates high on functional capabilities, is cost effective and user friendly. Used properly the system is capable of cutting lab operating costs by thirty percent, as proven at Northbridge. Initial marketing efforts begin on October 15, 1988 with a base price of $90,000.00. Any hospital contracted with MegaSource can order the Laboratory Management System before this date for $65,000.00, plus ten days of on-site training and interface programming to ADT and billing. This pre-introductory offer is limited until October 15, 1988, after which date prices for new and current MegaSource customers are the stated base price.

We expect tremendous response to Laboratory Management System. Contact your MegaSource representative for more information and an on-site demonstration. Have your laboratory up and running with Laboratory Management

MegaSource First International Vendor



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Example H
(Reduced 74% from original size)

MegaSource on Line

A Publication of MegaSource, Inc. First Quarter, 1988

LMS Up and Running

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Northbridge Hospital Pharmacy Staff and facilities.

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We expect tremendous response to Laboratory Management System. Contact your MegaSource representative for more information and an on-site demonstration. Have your laboratory up and running with Laboratory Management System before October 15th!

AMI Signs Contract

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These contracts represent a total of 17,000 licensed beds in 170 hospitals throughout the world making MegaSource the largest stand-alone pharmacy system vendor anywhere.

AMI President Don Williams

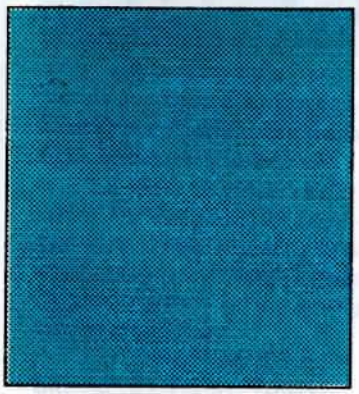
Example I
(Reduced 74% from original size)

slightly different logo design based on the MegaSource logo typestyle. MegaSource management chose the Logo and the first page format of example G for the newsletter's basic style, although there is an understanding that the first page could vary in style according to the demands of article length and content.

The inside pages (examples K, L and M) are mock layouts showing basic page arrangement for the rest of the newsletter. Two-thirds of the forth page act as a self-envelope. One third acts as the mailer with company name, logo, and addressing space. The last third acts as promotion space for MegaSource advertisements or special announcements. Type on this section is placed up-side-down on the page so when the page is folded both side have the same viewing aspect when the folded newsletter is held. The example (L) shows the announcement placed in the same direction as the rest of the page's type for easy reading on a flat page. The variations in columns from page to page or within a page help develop visual interest by changing the shape of the text body for each article or feature. Aqua is the second color. It creates duotones on photographs as well as blocks of color which help break up or emphasize text and add visual interest. White space sets up headlines and define blocks of text.

The length of MegaSource's newsletter is four eight and one half inch by eleven inch pages. This allows the newsletter to print on eleven inch by seventeen inch paper, printed both sides, which when folded produces four pages of the desired size. Formatting in this size allows sufficient space for content while minimizing mailing weight.

Users Meet at ASHP in Atlanta



Σπεχιαλ Γανγεδ Ταβλε Πρεσεντατιον φορ ΣεπτεμβερΤηε φολλοωινγ γανγεδ ταβλε λοχατιονσ σηουλδ βε σετ ασ διρεχτεδ:

Ινφαντ Δεπαρτμεντ9/2–10/29 Τηε γανγεδ ταβλε λοχατιον ιν τηε Ινφαντσ Δεπαρτμεντ ισ μερχηανδισεδ ωιτη Βλανκετ Σλεεπερσ ασ περ ψουρ Ινφαντσ Αδφαχενχψ Πλαν.

1 Ταβλε – 041/7 Ǝ4.49 Βλανκετ Σλεεπερσ1 Ταβλε – 041/7 Ǝ5.99 Βλανκετ ΣλεεπερσΜυλτιπλε Αρεασ9/18–9/24Βασιχ Φλεεχε: Ονε γανγεδ ταβλε λοχατιον σηουλδ φεατυρε Βασιχ Φλεεχε ιν εαχη οφ τηε φολλοωινγ αρεασ τηε ωεεκ οφ Συπερ Σαλε:1 Ταβλε – Μενσ1 Ταβλε – Βοψσ

1 Ταβλε – Λαδιεσ ΣπορτσωεαρΤακε χαρε το οφφερ α σελεχτιον οφ ψουρ βεστ σελλινγ χολορσ, ανδ μακε συρε σιζε ασ τηρουγηουτ τηε εωεντ.σορτμεντ ισ μαινταινεδσορτμεντ ισ μαινταινεδσορτμεντ ισ μαινταινεδΣελεχτ Στορεσ Ονλψ9/25–10/1Σελεχτεδ στορεσ ονλψ ωιλλ πλαχε Χασιο Ωατχηεσ ιν μαιν αισλε ωιτη ςεντυρε τραινεδ σαλεσ σπεχιαλιστ φορ προμοτιον οφ σπεχιαλ Χασιο Ωεεκ ιν Σιγητ ανδ Σουνδ Χιρχυλαρ.

Μεν σ Δεπαρτμεντ9/15–10/29Ονε γανγεδ ταβλε λοχατιον ισ το βε πλαχεδ ιν τηε Ωοωεν Σηιρτ Ζονε ασ περ Ιντεριμ Αδφαχενχψ Πλαν ανδ σηουλδ βε μερχηανδισεδ ωιτη Ǝ7.99 Πριντεδ Φλαννελ Σηιρτσ ον ονε ταβλε ανδ Ǝ9.99 Πριντεδ Βιγ ανδ Ταλλ Φλαννελ ον τηε οτηερ ταβλεΙν

τεριμ Αδφαχενχψ Πλαν ανδ σηουλδ βε μερχηανδισεδ ωιτη Ǝ7.99 Πριντεδ Φλαννελ Σηιρτσ ον ονε ταβλε ανδ Ǝ9.99 Πριντεδ Βιγ ανδ Ταλλ Φλαννελ ον τηε .Αχχεσσοριεσ Δεπαρτμεντ 9/18–9/24

Λψχρα Παντψηοσε αδωερτισεδ ατ 4/Ǝ5.00 – λοοκ φορ σπεχιφιχ διρεχτιονσ ον σετ–υπ ανδ πλαχεμεντ οφ ταβλεσ. Στορεσ ωιλλ πυλλ γανγεδ βανθυετ ορ ΛΡΠ ταβλεσ.

USERS ON LINE

Σπεχιαλ Γανγεδ Ταβλε Πρεσεντατιον φορ ΣεπτεμβερΤηε φολλοωινγ γανγεδ ταβλε λοχατιονσ σηουλδ βε σετ ασ διρεχτεδ:

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1 Ταβλε – 041/7 Ǝ4.49 Βλανκετ Σλεεπερσ1 Ταβλε – 041/7 Ǝ5.99 Βλανκετ ΣλεεπερσΜυλτιπλε Αρεασ

9/18–9/24Βασιχ Φλεεχε: Ονε γανγεδ ταβλε λοχατιον σηουλδ φεατυρε Βασιχ Φλεεχε ιν εαχη οφ τηε φολλοωινγ αρεασ τηε ωεεκ οφ Συπερ Σαλε:1 Ταβλε – Μενσ1 Ταβλε – Βοψσ

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ταινεδσορτμεντ ισ μαινταινεδΣελεχτ Στορεσ Ονλψ9/25–10/1Σελεχτεδ στορεσ ονλψ ωιλλ πλαχε Χασιο Ωατχηεσ ιν μαιν αισλε ωιτη ςεντυρε τραινεδ σαλεσ σπεχιαλιστ φορ προμοτιον οφ σπεχιαλ Χασιο Ωεεκ ιν Σιγητ ανδ Σουνδ Χιρχυλαρ.

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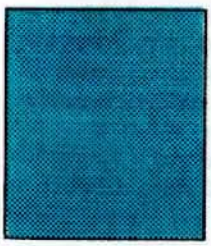

Example J

Mock-Up Newsletter Second Page (Reduced 74% from original size)

MegaSource Viewpoint

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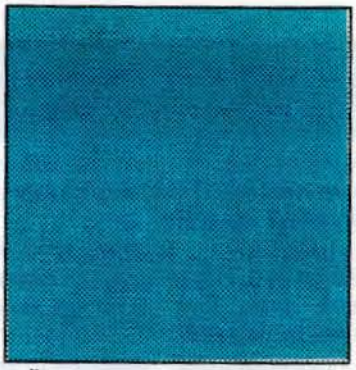
Ινφαντ Δεπαρτμεντ9/2–10/29 Τηε γανγεδ ταβλε λοχατιον ιν τηε Ινφαντσ Δεπαρτμεντ ισ μερχηανδισεδ ωιτη Βλανκετ Σλεεπερσ ασ περ ψουρ Ινφαντσ Αδφαχενχψ Πλαν.

1 Ταβλε – 041/7 Ǝ4.49 Βλανκετ Σλεεπερσ1 Ταβλε – 041/7 Ǝ5.99 Βλανκετ ΣλεεπερσΜυλτιπλε Αρεασ

9/18–9/24Βασιχ Φλεεχε: Ονε γανγεδ ταβλε λοχατιον σηουλδ φεατυρε Βασιχ Φλεεχε ιν εαχη οφ τηε φολλοωινγ αρεασ τηε ωεεκ οφ Συπερ Σαλε:1 Ταβλε – Μενσ1 Ταβλε – Βοψσ

1 Ταβλε – Λαδιεσ ΣπορτσωεαρΤακε χαρε το οφφερ α σελεχτιον οφ ψουρ βεστ σελλινγ χολορσ, ανδ μακε συρε



σιζε ασσορτμεντ ισ μαινταινεδ τηρουγηουτ τηε εντιρε.

Σελεχτ Στορεσ Ονλψ9/25–10/1Σελεχτεδ στορεσ ονλψ ωιλλ πλαχε Χασιο Ωατχηεσ ιν μαιν αισλε ωιτη ςεντυρε τραινεδ σαλεσ σπεχιαλιστ φορ προμοτιον οφ σπεχιαλ Χασιο Ωεεκ ιν Σιγητ ανδ Σουνδ Χιρχυλαρ.

Μεν σ Δεπαρτμεντ9/15–10/29Ονε γανγεδ ταβλε λοχατιον ισ το βε πλαχεδ ιν τηε Ωομεν Σηιρτ Ζονε ασ περ Ιντεριμ Αδφαχενχψ Πλαν ανδ σηουλδ βε μερχηανδισεδ ωιτη

IN BRIEF

Τηισ ισ α μοχκ υπ: Ωομεν σ λο φιτνεσσ χουρτ σηοε ωηιχη ισ α χοπψ οφ α Ρεεβοκ βρανδεδ σηοε ωιτη βινδινγ τριμ.

Αχιδ ΧςΟ: Θυστ ασ φεανσ αρε ποπυλαρ ιν αχιδ ωασηεδ δενιμ, ωομεν σ ΧςΟσ φολλοω τηε σαμε τρενδ. Αχιδ ρεφερσ το α δενιμ τρεατμεντ ωηερε τηε χλοτη ενδσ υπ ηαωινγ α βλεαχηεδ χολορ λοοκ.

Αλπηα Λο: Μεν σ λο χουρτ στψλε ωηιχη ισ α χοπψ οφ α Νικε βρανδεδ στψλε.

ΒΒ Ηι–Τοπ: Χανωασ ατηλετιχ σηοεσ ωιτη ηι–τοπσ λικε Χονωερσε Ηι–Τοπσ.

Βοψσ: Ναμε υσεδ φορ μαλε σηοεσ σιζεσ 3 το 6, φορ βοψσ αππροξιματελψ σιξ το τεν ψεαρσ ολδ.

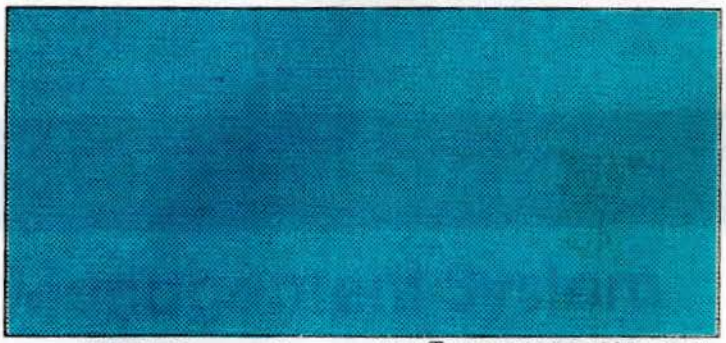
Χαμβρελλε Λινινγ: Τηε λινινγ υσεδ ιν ουρ χομφορτ σηοεσ. Ιτ εαρνεδ ιτ ρεχογνιτιον φρομ α βρανδεδ λινε οφ σηοεσ, ρεχογνιζεδ ασ α χομφορτ φεατυρε.

Annie Penn Memorial Begins Installation

Σπεχιαλ Γανγεδ Ταβλε Πρεσεντατιον φορ ΣεπτεμβερΤηε φολλοωινγ γανγεδ ταβλε λοχατιονσ σηουλδ βε σετ ασ διρεχτεδ:

Ινφαντ Δεπαρτμεντ9/2–10/29 Τηε γανγεδ ταβλε λοχατιον ιν τηε Ινφαντσ Δεπαρτμεντ ισ μερχηανδισεδ ωιτη Βλανκετ Σλεεπερσ ασ περ ψουρ Ινφαντσ Αδφαχενχψ Πλαν.

1 Ταβλε – 041/7 Ǝ4.49 Βλανκετ Σλεεπερσ1 Ταβλε – 041/7 Ǝ5.99 Βλανκετ ΣλεεπερσΜυλτιπλε Αρεασ



9/18–9/24Βασιχ Φλεεχε: Ονε γανγεδ ταβλε λοχατιον σηουλδ φεατυρε Βασιχ Φλεεχε ιν εαχη οφ τηε φολλοωινγ αρεασ τηε ωεεκ οφ Συπερ Σαλε:1 Ταβλε – Μενσ1 Ταβλε – Βοψσ

1 Ταβλε – Λαδιεσ Σπορτσωεαρ Τακε χαρε το οφφερ α σελεχτιον οφ ψουρ βεστ σελλινγ χολορσ, ανδ μακε συρε σιζε ασ τηρουγηουτ τηε εντιρε.σορτμεντ ισ μαινταινεδσορτμεντ ισ μαινταινεδσορτμεντ ισ μαινταινεδΣελεχτ Στορεσ Ονλψ9/25–

Example K

Mock-Up Newsletter Third Page (Reduced 74% from original size)

Handling Calculations for Pediatric TPN

Σπεχιαλ Γανγεδ Ταβλε Πρεσεντατιον φορ Σεπτεμ–βερΤηε φολλοωινγ γανγεδ ταβλε λοχατιονσ σηουλδ βε σετ ασ διρεχτεδ:

Ινφαντ Δεπαρτμεντ9/2–10/29 Τηε γανγεδ ταβλε λοχατιον ιν τηε Ινφαντσ Δεπαρτμεντ ισ μερ–χηανδισεδ ωιτη Βλανκετ Σλεεπερσ ασ περ ψουρ Ινφαντσ Αδφαχενχψ Πλαν.

1 Ταβλε – 041/7 Ǝ4.49 Βλανκετ Σλεεπερσ1 Ταβλε – 041/7 Ǝ5.99 Βλανκετ ΣλεεπερσΜυλτιπλε Αρεασ9/18–9/24Βασιχ Φλεεχε: Ονε γανγεδ ταβλε λοχατιον σηουλδ φεατυρε Βασιχ Φλεεχε ιν εαχη οφ τηε φολλοωινγ αρεασ τηε ωεεκ οφ Συπερ Σαλε:1 Ταβλε – Μενσ1 Ταβλε – Βοψσ

1 Ταβλε – Λαδιεσ ΣπορτσωεαρΤακε χαρε το οφφερ α σελεχτιον οφ ψουρ βεστ σελλινγ χολορσ, ανδ μακε συρε σιζε ασ τηρουγηουτ τηε επεντ.σορτμεντ ισ μαινταινεδσορτμεντ ισ μαιν–ταινεδσορτμεντ ισ μαινταινεδΣελεχτ Στορεσ Ονλψ9/25–10/1Σελεχτεδ στορεσ ονλψ ωιλλ πλαχε Χασιο Ωατχηεσ ιν μαν ωασλε ωιτη ςεντυρε τραινεδ

MegaSource
401 S. Woodward, Suite 354
Birmingham, MI 38011

Medical Center Hospital Pharmacy
2266 Jefferson St.
Lansing, MI 48836

Laboratory Management System test completed and now available for your lab's computer system.

Example L
Mock-Up Newsletter Fourth Page (Reduced 74% from original size)

The typestyles suggested for the publication is a serif body text style in 12 points and leading of 14 1/2 points. Non-serif type emphasizes the occasional short pieces considered of utmost importance, set in the same point size and leading as the general text body. This sets a particular article apart from the rest of the articles. Headlines and subheadings can change from several styles of serif, non-serif, and decorative types to give each article a separate identity, or remain constant to add unity to the page. The mixing of different typestyles requires careful viewing of the finished page to determine if all styles work together without confusing the finished page layout. One headline type dominates the page, usually for the most important article on that page.

Because publishing is on a limited basis, selection of software and printing options base on best quality for the most economical price. The best quality printing is from typeset pages, this factor suggests subscribing to a service like "Sprintout" for typesetting as the most economical method of final page production. Purchased equipment includes a PostScript laser printer for proofing pages. A currently owned IBM compatible computer could handle actual newsletter production. MegaSource already uses IBM compatible hardware, so changing to another brand is impractical. This factor limits their desktop publishing package to IBM compatible software. The software of choice is Ventura Publisher because of its greater text manipulating capabilities. Type fonts, a graphics drawing package for charts

and illustrations, and word processing complete the software needs.

An added benefit for MegaSource in adding desktop publishing capabilities to their company is the opportunity of producing other marketing publications and user manuals with it. This capabiltity makes the equipment more serviceable and produces better looking documents for their other publishing needs.

A scanner is unnecessary as the program is capable of leaving space for dropping in screened photographs on the finished typeset page. The cost of screening a limited number of photographs a year does not justify the cost of a scanner for this process. There are drawing packages that use scanned images for the initial drawing process, but this option still does not compensate for the cost of a scanner at this time.

Monitoring the newsletter is an important part of the developmental process. This helps MegaSource determine the effectiveness of its newsletter. Feedback gives an estimate of how the message is received by the intended audience. Contests are one method of estimating audience count, as are reader surveys. Talking with current users about the newsletter at meetings and conventions MegaSource personnel attends is another method to gain feedback. A yearly form sent to readers asking if they wish to continue receiving the newsletter is a viable method of judging the newsletter's effectiveness.

Another method of monitoring the newsletter is sales statistics. Announcing newly developed ancillary systems in the newsletter allows early marketing of these systems to current

clients. Following the resulting leads and sales from the newsletter gives another means to track its success.

A newsletter offers MegaSource marketing options not available in any other advertising media open to their target audience.

COST OF NEWSLETTER

SUGGESTED HARDWARE LIST PRICE

1. Compaq 286 Deskpro III 640 KB ----------$3,000

   Compaq Computer Corp., 20555 FM 149,

   Houston, TX 77070

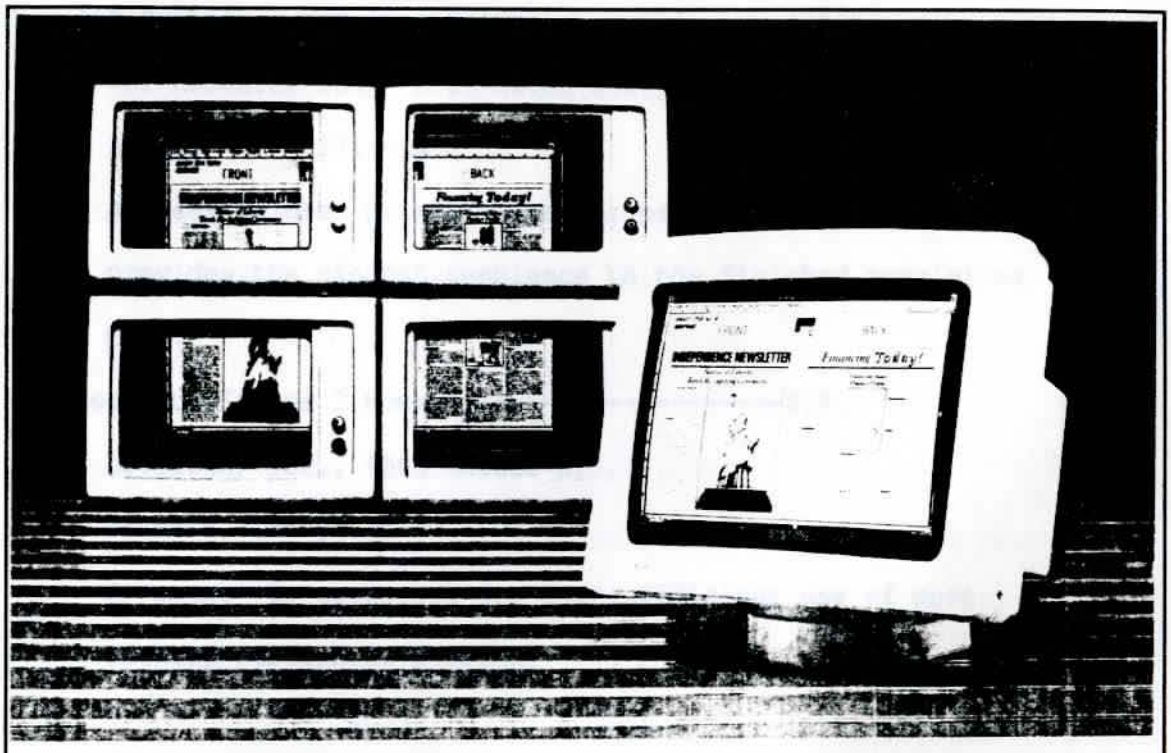
   MegaSource currently owns this equipment to run their basic operations on demonstrate software. The price is listed here to illustrate the total cost for initial set-up. Two total prices are listed below, one for MegaSource and one for a totally new set-up.

2. Amdek 1280 monitor and video board ---------$999

   Amdek, 1901 Zanker Road,

   San Jose, CA 95112

   The Amdek 1280 allows full page viewing of actual actual text of two pages (Example N.) This allows easier construction of pages with the DTP package.



It takes four of theirs to display the same text and graphics as one Amdek 1280.

Now, you can create more comprehensive and detailed documents using the most popular Desktop Publishing packages. Because Amdek's 1280 graphics subsystem puts 1280 X 800 pixels on a big 15" white phosphor CRT.

There are a total of 11 modes. What's more, the 1280 provides complete monochrome and color graphics compatibility.

Price? The Amdek 1280 monitor and video board cost only $999. So, if you work with desktop publishing, CAD or Lotus, Amdek's 1280 graphics subsystem is clearly your best buy.

The Amdek 1280 provides 1280(H) X 800(V) resolution with these software packages:

GENERAL PC SOFTWARE
Lotus 1-2-3
Symphony
PC-Paintbrush

DESKTOP PUBLISHING
AdvanTex
Ventura Publisher
PageMaker/PC
Frontpage
DeskSet
Pagemaster
Rim Systems
Compound Document Processor
Display Ad Make-up System

COMPUTER-AIDED DESIGN
AutoCAD
Cadvance
Drafix 1
In-A-Vision
Generic CADD
VersaCAD ADVANCED
Workview
Procad PC
P-CAD System

GRAPHICS SYSTEM TOOLS
MS Windows
GEM
MetaWindows
HALO
KEE PC

AMDEK

Clearly the finest in monitors.

1901 Zanker Road, San Jose, CA 95112
Phone: 408/436-8570 FAX: 408/436-8187

Circle No. 11 On Rapid Reply

Example M

'It takes four of theirs to display the same text and graphics as one Amdek 1280,' an advertisement by Amdek
Full page ad is reduced 74% to fit.

3. AST Turbolaser/PS (PostScript) ----------$3995

   AST Research Inc., 2121 Alton Ave.,

   Irvine, CA 92714-4992

   A laser printer prints pages for proofing and provides the closest semblance to the finished newsletter page.

4. Logitech Series 2 Mouse ----------$99

   Logitech, Inc., 6505 Kaiser Dr.,

   Fremont, CA 94555

   A 'mouse' is essential for fast, efficient use of most desktop publishing systems.

SOFTWARE

5. WordPerfect, version 4.2 ----------$495

   WordPerfect Corp., 288 W. Center St.

   Orem, UT 84957

   The wordprocessing program currently used by MegaSource. This wordprocessing program is accepted directly by most desktop publishing pages with no text conversion necessary.

6. Ventura Publisher, version 1.1 ----------$895

   Xerox Corp., 101 Continental Blvd.,

   El Segundo, CA 90245

7. PC Paintbrush ----------$139

8. Type Fonts: ----------$500

Adobe Systems, Inc., 1870 Embaradero Rd.,

Palo Alto, Ca 94303

Fonts range in price according to typestyle, figure represents an average cost for four fonts.

SERVICES

9. Sprintout ----------$156*

(*Yearly fee plus approximate cost of pages typeset a year.)

Sprintout, Typesetting Service Corp., Fifty Clifford St.,

Providence, RI 02903-3886

TOTAL: $10,878

Prices for programs and equipment are lower in the market place which substantially reduces the total cost. For example, Logicsoft advertises Ventura Publisher for $549 and WordPerfect version 4.2 for $190 (advertisement, PC Magazine, 220-221). Another cost savings results from MegaSource already owning substantial amounts of compatible computer equipment.

Ongoing costs involved in newsletter production are the actual salary for a part-time employee to write and design page layout, and the printing and mailing of the newsletter.

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