This report evaluates 13 products described by their publishers as appropriate for desktop publishing. The products have in common the ability to combine text and graphics on a page; however, they vary greatly in capabilities and cost. Some products have a very narrow use (e.g., certificate makers and puzzle generators), and some have a very general use (e.g., drawing programs that can also format text into columns). Each product evaluated fulfills the following criteria: (1) text and graphics must be able to move freely on the page; (2) text and graphics must be able to be imported from other sources; (3) the program must be defined by the publisher as appropriate for use in schools; and (4) the product must operate on an Apple II series, a Macintosh, or an MS-DOS compatible microcomputer. It is noted that, although some products are specially packaged for schools, most are designed for business or professional use, and schools will have to make certain adjustments to those programs to fit an educational setting or specific curriculum. Presented in narrative format, the review for each product provides its price and a description of its unique characteristics; an evaluation of the ease of use which indicates its key features; a discussion of ease of learning which points out the availability of users' guides and tutorials; a summary of the system's best and worst features; and a general recommendation for appropriate applications of the product. A list of publishers' addresses and phone numbers is included. (SD)
DESKTOP PUBLISHING FOR SCHOOL USE

A CRITICAL REVIEW OF PRODUCTS

A MicroSIFT Report

May 1989

by

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# Table of Contents

<table>
<thead>
<tr>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Descriptions of Desktop Publishing Packages</td>
<td>4</td>
</tr>
<tr>
<td>Byline 1.0</td>
<td>4</td>
</tr>
<tr>
<td>Children's Writing and Publishing Center School Edition</td>
<td>5</td>
</tr>
<tr>
<td>First Publisher 2.0</td>
<td>6</td>
</tr>
<tr>
<td>Medley 1.0</td>
<td>7</td>
</tr>
<tr>
<td>PageMaker 3.0 (MS-DOS)</td>
<td>8</td>
</tr>
<tr>
<td>PageMaker 3.0 (Macintosh)</td>
<td>9</td>
</tr>
<tr>
<td>Pages</td>
<td>10</td>
</tr>
<tr>
<td>Publish It! 1.01 (Apple II)</td>
<td>11</td>
</tr>
<tr>
<td>Publish It! 1.11 (MS-DOS)</td>
<td>12</td>
</tr>
<tr>
<td>Quark Style 1.01</td>
<td>13</td>
</tr>
<tr>
<td>Quark XPress 2.0</td>
<td>14</td>
</tr>
<tr>
<td>Springboard Publisher 1.11 (Apple II)</td>
<td>15</td>
</tr>
<tr>
<td>Springboard Publisher 1.06 (Macintosh)</td>
<td>16</td>
</tr>
<tr>
<td>Publishers</td>
<td>18</td>
</tr>
</tbody>
</table>
Introduction

In this report, we looked at a number of products which are described by their publishers as appropriate for "desktop publishing." The products have in common the ability to combine text and graphics on a page, but beyond that there is a very wide range of capabilities and prices. There are products which are also marketed as desktop publishing software but which have a very narrow use (e.g., certificate makers, puzzle generators, etc.) or a very broad use (e.g., a drawing program which can also format text into columns.) In choosing products for this report we use the following criteria:

- the product must allow text and graphics to be placed and moved freely on a page;
- the product must import both text and graphics from other sources;
- the publisher must identify the product as appropriate for desktop publishing in the schools; and
- the product must operate on an Apple II series, a Macintosh, or an MS-DOS compatible microcomputer.

The products reviewed here were not written for the school market. Some, like the Children’s Writing and Publishing Center, were written for a broader market and specially packaged for schools. Most, however, were designed for business and professional use. If schools find them useful, they will have to make the adjustments to fit an educational setting and a specific curriculum.

The criteria for reviewing desktop publishing software for schools are not greatly different from those which might be used to evaluate the products for business. A product must work well and have features which are essential if it is to be useful in either setting. In addition to these considerations, since teachers have reported that much of the software they have been using is too difficult for their students to learn, we looked at the products with ease of use and ease of learning in mind.

The general features we looked at were:

Price—an obvious point, but the range of prices was startling. The least expensive packages cost in the $70-$100 range, the most expensive were in the $700-$800 range.

Minimum RAM—We looked at the minimum amount of Random Access Memory which was needed to run the program since adding memory is much more expensive and difficult than selecting an alternate product. The range was not significant except on Apple II series computers. Macintosh and MS-DOS products tended to operate with the standard RAM, but Apple IIGS products often required the most memory possible on the machine.

Required Hardware—Other than your computer, what will you need to operate the program? The extras can be costly if they include a hard disk drive, high resolution monitor, etc.

Optional Hardware—Can you use any of the fancy equipment that you already own?

Some features specific to desktop publishers that we looked at were:

Master Pages—Can you design graphics, column layouts, borders, etc. which automatically appear on every page? This feature is not essential, but it can save time on lengthy documents.

Undo—Can you change your mind about the last action you performed and have the document restored to how it was? Most have this feature.

Rules—Can you draw lines to separate columns, stories, banners, etc.?
Import Text—Since a desktop publisher is used to assemble elements from other sources, the specific word processing from which the package will import text is very important. Especially look for the word processor you use, since it is a bother to have to reformat your text after it is in the page layout program.

Import Graphics—Similarly, you should be able to import the pictures you draw elsewhere. If you have a large Clip Art collection, make sure that the package will import graphics in that format.

Draw—Can you create graphics within the desktop publishing program? Some allow simple frames and lines, others provide a complete set of painting tools.

Number of columns—This number is not especially important if it is at least four. More columns on a page are usually only necessary if you are using paper other than letter size.

Leading—Can you vary the amount of space between lines? Varying leading often helps in making a page more readable and attractive.

Kerning—Can you vary the distance between particular letter pairs (e.g., reduce the space between the "w" and the "o" in "word"). Kerning is not essential for most school publishing. Some programs do not kern but will allow you to vary the spaces between all of the letters.

Templates—Are there templates to guide you in creating an appealing layout? Some products provide them and some of those require them.

Clip Art—Does the package have some graphics included?

Typefaces—What typefaces does the program provide? (For Macintosh programs the fonts are not provided with the program but are part of the system you are using.)

Font sizes—This figure will be a range. Not all typefaces will have all of the sizes. Macintosh products will usually allow any size within the range for any typeface.

Type Styles—What can you use to emphasize the text?

Search and replace—Can you find a particular piece of text and substitute some other text automatically? This is important primarily if you are using the package to enter most of your text.

Spell check—Does the program check spelling automatically? Even if you enter the text somewhere else, this feature is helpful.

Export—Will any other programs be able to use any of the information from your completed page layout?

Style Sheets—A style sheet allows you to package a group of formatting commands and give them a name. When you want a paragraph to look a particular way, you just attach that style's name to the paragraph.

Rulers—Most programs have rulers which help you design your page.

Finally, we made some judgments to determine the following criteria:

Grade Range—Since most of the packages were not intended to be used in schools, they did not usually list a grade range.

Ease of Learning—This was one of the primary considerations for teachers. We rated not only the software, but also the supplementary materials.
Ease of Use—Once you know how to use a package, how easy is it on a day-to-day basis? This perception is not always the same as ease of learning, since some of the things that make a program easy to learn get in the way when you just want to do things fast.

Best Features—This was not only what we liked best, but also what would be most appropriate in the school.

Finally, for each product we have made a recommendation. It is difficult to make an overall recommendation since the needs within a school differ so greatly. In general, if you are planning to produce quality products on an ongoing basis, then the entry level MS-DOS and Apple II products may not be powerful enough. In all of the Apple II products the lack of speed was a problem which would become significant in day-to-day use.
Descriptions of Desktop Publishing Packages

Byline 1.0
Ashton-Tate $295.00

Description
This package is a keyboard-driven page layout program which integrates graphics and text from existing documents. While there is a text editor built in, the program is best at formatting existing documents into a finished publication. The file which is built by Byline is a series of page specifications which describe how a particular file will be formatted for printing. The actual text and graphics are not a part of the completed file, but rather, are referred to by file name.

In building a publication, each page is completed as an entirely separate unit. If a text file is longer than the space reserved for it, the program will look at the rest of the spaces in the publication to see if they have that text file's name. If so, the program will continue to flow the text in the spaces with that file name in the order in which they appear. If there are no more spaces reserved for the text file, nothing further will happen.

Graphics may be imported from a number of sources. Each graphic is displayed according to the space allotted for it and the cropping which is specified. If the space reserved for a graphic is a different shape than the graphic to be placed, then the graphic will be distorted to fit the space.

A preview of the page being constructed is always available on-screen. The view is too small to actually read most text, but the general shape of text elements and the actual graphics can be determined.

Ease of Use
The program is somewhat difficult to use. Because the preview of a page is not updated while text is edited, the flow from line to line and text element to text element is difficult to predict.

All commands are entered by keystrokes. In some cases this amounts to tedious specification. For example, to lay out a section of text, the left margin, right margin, top margin, bottom margin, font, typesize, leading, and file name must all be entered.

Ease of Learning
While there is a tutorial in the user's manual and a number of sample files, the program is still difficult to learn. The problem in learning to use Byline is in the complexity of specifications for each element which is placed on a page.

Best Features
The program does not require any special equipment for MS-DOS compatible microcomputers. It will work with a CGA video card and monitor and without a mouse.

The preview of the general shape of each of the elements of text and graphics is accurate.

The program supports a number of printers.

Worst Features
There is no autoflow around graphic elements or other text elements. When a picture is added, it is a difficult task to change the layout of the text to accommodate it.

The page layout screen cannot be read. A view of the text is available when editing but the changes in text are not reflected on the screen until the user leaves the text editor. Such tasks as making the text fit a particular space are extremely difficult.

Byline does not import text from Microsoft Word, one of the more popular word processors for MS-DOS compatible equipment.
Recommendation

Byline is difficult to use. The program is designed to be run on less powerful computers, and while this is an asset in some respects, it greatly restricts the ways in which the user interacts with the program. Most of the information on what the page really looks like is either unavailable or difficult to determine.

Consider this program only if you already use a word processor on the PC and it is one of the programs which are supported. It is not a particularly useful word processing program on its own. If your school is under so strict a budget that you cannot afford a mouse for your page layout tasks, then this might be useful.

Children's Writing and Publishing Center: School Edition
The Learning Company $79.95

Description
This program is a very simple text processor and page layout program. Students may choose either a one-column or two-column format with a quarter-page banner on the first page or not. They may then type text into the banner or the body (the program does not import text) and place pictures on the left side of the page or the right side.

When entering text, students may choose among any of eight "for.s" which are combinations of a typeface, style, and size. Fonts may not be changed except through deleting the text and re-entering it in the new font.

The program supports limited cut-and-paste features. Cuts must be made in entire lines and copying must be accomplished through a cut, a paste in the original location, and another paste in the new location.

Documents are limited to four pages. There are no settings for margins, tab settings, variable leading, or different paper sizes. The program supports a variety of dot matrix printers.

The program comes with lesson plans, a curriculum matrix, a teacher guide, and sample files. There are reproducible masters for off-line activities.

Ease of Use
The program is very easy to use. Most commands are visible on the screen at all times. Some help is available on-screen.

Ease of Learning
Because of the limited options, learning the available options is quick. The great strength of the program is in the manual and the teaching materials which accompany the software.

Best Features
The supplemental materials are very good lesson plans for teaching the writing process. There is some emphasis on page design, but more on writing.

The program is easy to use, especially in integrating graphics and text.

Worst Features
The program lacks even the basics of a text processor and does not allow the importing of text. Text is not easy to revise in format since it must be deleted then re-entered.

Many of the choices which contribute to effective page layout are forced by the program. This includes size of graphics, margins, tabs, text flow, etc. Students learn only very simplistic (e.g., one-column or two-column) design considerations.
Recommendation
The program's supplemental activities make it a reasonable learning tool. However, if the tool is intended for use in producing ongoing newsletters, posters, etc., its limitations would soon become overwhelming.

First Publisher 2.0
Software Publishing Company $129.00

Description
First Publisher is designed as a page layout program for short flyers, newsletters, etc. The program combines text and graphics in separate overlays. Its text processor is very basic, but it has the ability to import formatted text from a number of popular MS-DOS word processors. Graphics may be drawn with the tools provided or imported as bitmaps from other paint programs.

Although the program works well with either a mouse or a keyboard, using keyboard commands is more difficult and awkward. Most beginners will enter commands through pull-down menus which can be operated from the keyboard. Most commands also have keystroke equivalents.

The screen is easy to read, but is not WYSIWYG. Graphics and text are vertically distorted on the screen, with a square on the screen printing as a rectangle. Rulers and grids are available to help plan for effects of the distortion.

The program is page-oriented. Each file which is imported must fit onto one page or the extra will go into an overflow area. This overflow must be pasted into a new page by the user. Each document may have only one text file associated with it.

While the graphics and text are on separate layers, there is a command to wrap text around graphics. The shape of the wrapped text will be rectangular, but individual lines may be modified to wrap around irregular objects.

The manual is well-written and includes a tutorial with sample files.

Ease of Use
With a mouse the program is moderately easy to use. All commands are available through pull-down menus, with many also available through keystrokes. The lack of a WYSIWYG screen makes the job of laying out a document particularly difficult. The user's window on the entire document is also very limited.

Art is especially difficult to import. The publication in progress must first be saved, then the Clip Art file is loaded, the section of art to be used is copied to the clipboard, the publication is reloaded and the art is pasted from the clipboard.

Ease of Learning
The program is easy to learn. The tutorial is easy to follow and the menus are well-labeled.

Best Features
The program is very quick to learn. The pull-down menus are well-labeled and organized.

The screens are easy to read.

Formatted text may be imported from a variety of word processors.

A variety of paint tools is included.
Worst Features
The screen shows a limited section of a page and is not WYSIWYG.

Multi-page documents are difficult to handle.

Importing art from Clip Art collections is difficult.

Each document may have only one text file in it.

Recommendation
While the program will import text and graphics from an impressive variety of word processors and paint programs, First Publisher is not powerful enough for even simple page layout. The inability to import more than one text file in a document limits its use to simple flyers and posters.

Medley 1.0
Miliken $195.00

Description
Medley is a desktop publishing program which includes each of the tools for producing the material which is finally assembled. Text may be imported from AppleWorks files or composed using the full-featured word processor which is part of the program. Artwork may be imported or drawn with the complete paint program which is also included.

The word processor includes all of the normal features as well as a spelling checker, a thesaurus, and a graphic display of typefaces and styles. Margins and tabs are easily set by sliding the appropriate symbols on the ruler. Settings may be made for individual paragraphs or for an entire selection. The replace command is powerful and easy to use.

The paint program has paint brush, fill, pencil, close-up, spray can, text, and line drawing tools. Frames, ovals, polygons, and irregular shapes can be drawn either filled or not. The user may select the brush shape, line width, drawing color, and fill color. A variety of special effects is available to modify drawings.

It is as a page layout program that Medley is weakest. The order in which text flows from column to column or page to page cannot easily be varied. While text wraps beautifully around graphic objects, the program will sometimes interpret a graphic as a column divider and place text inappropriately. Only a portion of each page is visible at one time, and the program does not scroll when using a mouse to select large portions of text or graphics. There is no preview feature to get an overview of what the complete page will look like.

Ease of Use
The program is very easy to use, considering the large number of features and options available. All commands may be made through pull-down menus, and many of them have keyboard equivalents as well. The word processing, drawing, and page layout modules are completely integrated. The use of separate art areas and text areas is potentially confusing, however.

Ease of Learning
The program is easy to learn considering its complexity. Each of the modules uses similar techniques and commands. The manual is well-written and organized. The tutorial is a bit too brief, in that it leaves out several important features of the program.

Best Features
The best part of the program is the complete integration of the three major parts: word processing, drawing, and page layout. Both the word processing module and the drawing module are as complete as any dedicated programs for the Apple IIgs.
The auto-flow around odd-shaped graphics is very nice.

The word processor includes a spelling checker, automatic hyphenation, and a thesaurus.

Worst Features
The program is very slow at refreshing the screen when any text is changed. A lot of the text must be reflowed and redrawn on the screen. This would make a student less likely to experiment with changes.

The text does not always flow around graphics in predictable ways. Sometimes a short new column will appear unexpectedly, causing a confusing flow of text.

The screen does not always redraw accurately. When a graphic is resized or moved, portions of the original graphic will remain on the screen.

The program will not scroll when making mouse selections. This is a major disadvantage since so little of a document can be seen at one time.

There is no page preview.

Recommendation
The program is a capable word processor and drawing program, but only adequate as a page layout program. Middle school students would probably enjoy the graphic representation of the text, but the word processor is too slow to consider for producing anything but short articles.

The best use of Medley might be to compose illustrated stories. Since each document can contain only one word processing file, and it is difficult to make the program flow a story in any way other than linear, its use in constructing class or school newspapers is limited.

PageMaker 3.0 (MS-DOS)
Aldus $695.00

Description
Like its Macintosh counterpart, PageMaker 3.0 for the PC is a standard page layout program. It is primarily intended as a program to import text from word processors and graphics from drawing programs or scanners. There are some text editing and graphic capabilities.

Since the program is made for output from PostScript printers, there is very fine control over how the page prints. Font sizes may vary from 4 points to 127 points. It will use any of the fonts which are installed on the Macintosh being used. Leading and kerning may be adjusted in one-point intervals.

PageMaker has a limited number of graphics tools for enhancing text. The user may draw lines and circles and frames and fill those objects with varying patterns and grey scales.

Importing text and graphics is a particular strength of PageMaker for the PC. It will import formatted text from virtually every PC word processor and will import style sheets for MS Word and DEC word processors. Graphics can be imported from every environment including scanned images, plots to disk, and Macintosh programs.

Columns for text may be chosen which automatically divide the page, or custom column widths may be drawn. Graphics can be resized and cropped after they are imported.

Ease of Use
PageMaker is moderately difficult to use because of the vast number of options available to the user. For simple layouts, however, these options can be ignored and a document produced quite simply.
Ease of Learning
PageMaker is moderately difficult to use because of the number of features to learn. The tutorial is good for learning the basic features, but the help feature is indexed rather than context-sensitive. A major difficulty for the first time user is in the complexity of installing both the program and Windows software which is required and in tailoring the software to the configuration of the computer being used.

Best Features
The program imports documents from word processors and graphics programs very easily and completely. Because PageMaker is a standard on the PC, as applications are developed they are made to be compatible with this program.

Style sheets allow paragraph styles to be designed and applied to a document. Changing the style sheet changes all of the paragraphs which are designed in that style.

The program has several levels of zoom which speed the page layout process. General layout can be done with the entire page showing while editing text can be done at actual size or larger.

The program will automatically flow text around or through graphics.

Control over kerning and leading and line widths are very precise.

Worst Features
Word processing must still be done with another application. There is no spelling checker or search and replace function.

The price is high for a school budget. The program itself is expensive and the required hardware is more powerful than is found in most secondary schools.

Recommendation
PageMaker continues as one of the best page layout programs. Advantages to using it in the school include the fact that this is the program the students are likely to encounter after they leave school.

While the price of the program is high, the actual cost of using it is higher. Each computer must also have a hard disk in order to use PageMaker. The program must be run on a microcomputer which is compatible with an IBM AT. If your needs are for a professional looking product or for a program to teach vocational page layout skills, then PageMaker for the PC is a good choice.

PageMaker 3.0 (Macintosh)
Aldus $595.00

Description
PageMaker 3.0 is a standard for page layout programs. While it has simple text processing and graphics features, it is primarily intended as a program to import text from word processors and graphics from drawing programs or scanners.

Since the program is made for output from PostScript printers, there is very fine control over how the page prints. Font sizes may vary from 4 points to 127 points. It will use any of the fonts which are installed on the Macintosh being used. Leading and kerning may be adjusted in one-point intervals.

PageMaker has a limited number of graphics tools for enhancing text. The user may draw lines and circles and frames and fill those objects with varying patterns and grey scales.

Columns for text may be chosen which automatically divide the page, or custom column widths may be drawn. Graphics can be resized and cropped after they are imported. The program recognized TIFF, EPSF, PAINT, and PICT formats.
Ease of Use
PageMaker is moderately difficult to use because of the vast number of options available to the user. For simple layouts, however, these options can be ignored and a document produced quite simply.

Ease of Learning
PageMaker is moderately difficult to use because of the number of features to learn. The tutorial is good for learning the basic features and a context-sensitive help feature is online.

Best Features
The program imports documents from word processors and graphics programs very easily and completely. Because PageMaker is a standard on the Macintosh, as applications are developed they are made to be compatible with this program.

Style sheets allow paragraph styles to be designed and applied to a document. Changing the style sheet changes all of the paragraphs which are designed in that style.

The program has several levels of zoom which speed the page layout process. General layout can be done with the entire page showing while editing text can be done at actual size or larger.

The program will automatically flow text around or through graphics.

Control over kerning and leading and line widths is very precise.

Worst Features
Word processing must still be done with another application. There is no spelling checker or search and replace function.

The price is high for a school budget.

Recommendation
PageMaker continues as one of the best page layout programs. Advantages to using it in the school include the fact that this is the program the students are likely to encounter after they leave school.

While the price of the program is high, the actual cost of using it is higher. Each computer must also have a hard disk in order to use PageMaker. If your needs are for a professional looking product or for a program to teach vocational page layout skills, then PageMaker is a very good choice.

Pages
PinPoint Software $79.95

Description
PinPoint's Pages is a simple-to-use graphically oriented page layout program. It imports text and graphics from an impressively varied list of word processors and paint programs as well as from Lotus 1-2-3.

All of the commands can be called from pull-down menus, and most are also available from keystrokes or from a set of hierarchical toolboxes. Selecting the text tool, for example, brings up a subset of tool icons for selecting font, justification, leading, tracking, etc.

Both text and graphics are embedded into frames. The frames can be drawn with the graphics tools, or selected from a menu of templates. The frames and other objects can be aligned in a number of ways from a simple menu. Resizing of objects may be done through the mouse or by specifying exact dimensions from a dialog.

Text may be formatted in scaled fonts from 2 to 128 points. There are four typefaces included with one to three styles in each typeface. Text may flow automatically into templates or into text frames which are linked by the user.
Graphics may be drawn within Pages or imported. The program includes a zoom feature to edit pictures one pixel at a time. Special effects include cropping, resizing, flipping, and rotating graphics.

Ease of Use
The program is very easy to use. The menu choices are self-explanatory and the tool icons are reasonably clear once they are learned. When choosing such things as files to import, the program uses clear and convenient dialog boxes.

Ease of Learning
The program is relatively easy to learn. The only difficulty is in the use of text and graphic frames instead of direct entry of those items. There is a help menu which, while not context-sensitive, is conveniently indexed.

Best Features
The program is well laid out and easy to use.

Files may be imported from a wide array of word processors, paint programs, and Lotus 1-2-3.

Fonts are scalable.

The program is inexpensive.

Worst Features
There is no font for underlined words.

The program can be very slow at updating screens. At times even moderately fast typists can outpace the software. When this happens the computer beeps to signal that keystrokes are being lost. The suggested fix for this, turning off the feature which displays actual fonts, defeats much of the purpose of the program and is only partially successful.

The program does not automatically wrap text around graphics. Instead, the text frame can be split and resized in the area in which a graphic will be placed.

The user may not edit the page when the full-page view is showing.

Recommendation
If your need is for very simple page layout and you plan to use your own word processor, then Pages is a good choice. It is too slow to consider as a word processor, but it does well at importing both text and graphics.

The price is very good for the number of features available. Some which are missing, such as underlining and text wrapping, may be important enough to warrant a more powerful program, however.

Publish It! 1.01 (Apple II)
Timeworks, Inc $99.95

Description
Publish It! is designed primarily as a page layout program using text and graphics which were created in other applications. The user starts by designing a page or the entire document, laying out the areas which will eventually include text and those which will include graphics. After the areas are defined, the actual text and graphics are flowed into them. Text areas may be linked, causing the overflow text from one area to flow to the next. Several linked areas may form a chain through the completed document.

To import graphics, the student would define a graphic area then select a picture to import into that area. The picture is presented on the screen and a cropping region the size of the area reserved for the graphic replaces the cursor. The student simply selects the part of the picture which will be the graphic.
Text may be entered into a document using the word processing capabilities of Publish It!. The word processing environment has many of the features of full-featured programs, including search and replace and character formatting, but cannot keep up with even a moderately fast typist.

Simple graphics may also be created by the program. Publish It! includes tools for making rectangles, rounded rectangles, circles, and lines. The shapes become graphic objects which may be moved, overlayed, resized, or deleted. There are no tools for creating freehand objects, however.

Ease of Use
Once a student learns the concept of creating the image of a layout before adding the content, the program is easy to use. All commands are through pull-down menus, with many having keyboard equivalents. Some limitations of the program, such as the inability to vary tab stops by paragraph, actually make the program easier to use. One difficulty in using the program is determining how a particular story links from column to column and page to page. The order cannot be discovered by viewing the document.

Ease of Learning
The program is easy to learn. There is a brief tutorial with sample files.

Best Features
The program is relatively fast for an Apple II page layout program. The text is greeked for all but the actual size representations.

Publish It! will import from a number of widely used sources including AppleWorks, Bank Street Writer, and Print Shop

The program uses an interface similar to the one used by desktop publishing programs on the Macintosh.

Worst Features
The word processing portion is poor as a means of entering new text. The screen display is very slow and portions of the text are lost when even a moderately fast typist gets too far ahead of the display. The program should not be considered as a word processor on an Apple IIe or IIc.

There is no way to determine how text blocks have been linked.

Recommendation
At the price, this program is a good product for page layout after the text and graphics have been produced in other programs. The text editing and graphics included are adequate only for minor changes to existing text and for adding frames, rules, etc. to the layout.

The process of laying out the positions of graphics and text before actually adding them is close to the process used in professional applications. Students should have little difficulty moving from Publish It!2 to similar programs on more powerful microcomputers.

Publish It! 1.11 (MS-DOS)
Timeworks, Inc $199.95

Description
Like Publish It! for the Apple II series, the PC version is designed primarily as a page layout program using text and graphics which were created in other applications. The user starts by designing a page or the entire document, laying out the areas which will eventually include text and those which will include graphics. If all of the document is to be in a similar format (e.g., all three-column text) the areas can be drawn as master pages. After the areas are defined, the actual text and graphics are flowed into them.

Text areas may be linked, causing the overflow text from one area to flow to the next. Several linked areas may form a chain through the completed document.
To import graphics, the user defines a graphic area then selects a picture to import into that area. The picture is imported into that area and scaled to fit the area defined. After it is imported, a picture may be cropped or resized. The program includes a text run around which will conform to rectangular boundaries of graphics or other text areas.

Text may be entered into a document using the word processing capabilities of Publish It!. The word processing environment has many of the features of full-featured programs, including search and replace and character formatting, but cannot keep up with even a moderately fast typist.

Simple graphics may also be created by the program. Publish It! includes tools for making rectangles, rounded rectangles, circles, and lines. The shapes become graphic objects which may be moved, overlayed, resized, or deleted. There are no tools for creating freehand objects, however.

Ease of Use
Publish It! is easy to use. All of the menu commands can be made through pull-down menus. The program has many levels of zoom to help visualize what the final document will look like.

Ease of Learning
Publish It! uses the GEM interface, so students who are familiar with GEM will have an advantage in using the program. The first time the software is used requires a tedious setup procedure. The manual includes a tutorial. Help is available through a topic index.

Best Features
Publish It! will import from a number of widely used sources including MS Word, Word Perfect, and Word Star.

The program uses an interface similar to the one used by desktop publishing programs on the Macintosh.

The style sheets feature is unusual in an inexpensive program. The program allows control of leading, kerning, indents, tabs, fonts, and a number of typestyles through the style sheet.

Worst Features
The word processing portion is poor as a means of entering new text. The screen display is slow and portions of the text are lost when even a moderately fast typist gets too far ahead of the display. The program should not be considered as a word processor on an IBM PC or compatible with a slower processor.

There is no way to determine how text blocks have been linked.

Style sheets which are developed in the word processing programs are not carried into Publish It!.

Recommendation
Publish It! is a good choice for simple page layout on MS-DOS compatible microcomputers. It will work on the equipment which is usually available in secondary schools (although the addition of a mouse is nearly essential), and is reasonably priced. The program provides a WYSIWYG view of the document and includes a number of features found on only much more sophisticated programs.

Quark Style 1.01
Quark $795.00

Description
Quark Style uses the same frame style of page layout as does Quark Xpress. A big difference is that in Style, the user will usually select a predesigned template into which he or she will place text and graphics rather than drawing those frames with the program. The templates which are supplied with the program cover a wide variety of styles from business cards to several formats of newsletters.
The program includes a very powerful word processing mode. The user may create text, check spelling, search and replace, format using style sheets, and hyphenate automatically. Each text frame may be formatted to contain columns within which the text wraps automatically. Text may also be imported from most of the Macintosh word processing programs. If the text is prepared in Microsoft Word 3.0, then the style sheets which are attached in that program are imported into Quark Style.

Style includes graphic tools to draw straight lines and to draw and fill frames, rectangles, rounded rectangles, and ovals. Graphics may also be imported from virtually any graphics file. The program lacks the color capabilities of Xpress as well as the ability to draw arrows, and specify lines with detailed precision.

Text frames may be linked to flow text in any order. If the text which is imported fills a frame, it is automatically flowed onto an additional page. Links are shown graphically on the page so that the exact direction of flow for each story is easy to see.

Ease of Use
The program is quite easy to use. All of the commands are available from pull-down menus. Many choices have keyboard equivalents. Hierarchical menus are used for some items. There are several levels of zoom, so the entire page is easy to visualize while quickly switching to an actual size to create and modify text. The use of templates makes designing a page very easy and all templates may be modified to fit special situations.

Ease of Learning
The program is easy to learn. There is a tutorial and sample files to help in learning.

Best Features
The word processor in Style is powerful enough to use in creating stories. There is a spelling checker, automatic hyphenation, multiple columns, and style sheets to make text entry fast and easy. There are a number of zoom levels to view the text as it is entered.

The program will import and export from and to most Macintosh word processors and graphics programs.

Text sizes may vary from 2 to 500 points. Tab rulers are particularly easy to set.

Worst Features
The program is relatively slow at redrawing screens.

Recommendation
This program is a good choice if you do not already have a word processor for your Macintosh. Style has a full-featured word processor and a very good page layout module. The templates are easy to modify and represent the design ideas of professionals.

Quark XPress 2.0
Quark $795.00

Description
Quark Xpress 2.0 uses a frame style of page layout. The user designs the look of a page using text or graphics frames, then fills those frames with the appropriate text or graphics. Quark will allow any text graphics frame to contain a secondary text or graphics frame, which makes moving related items very easy.

The program includes a very powerful word processing mode. The user may create text, check spelling, search and replace, format using style sheets, and hyphenate automatically. Each text frame may be formatted to contain columns within which the text wraps automatically. Text may also be imported from most of the Macintosh word processing programs. If the text is prepared in Microsoft Word 3.0x, then the style sheets which are attached in that program are imported into Quark Xpress.
While the drawing tools in Xpress are limited, the program will import graphics from virtually any source. The program supports color graphics and will add color to existing graphics or text. If a graphics frame overlaps a text frame, the program automatically runs the text around the graphics frame. All graphics may be cropped or scaled.

Text frames may be linked to flow text in any order. If the text which is imported fills a frame it is automatically flowed onto an additional page. Links are shown graphically on the page so that the exact direction of flow for each story is easy to see.

Ease of Use
The program is moderately easy to use. All of the commands are available from pull-down menus. Many choices have keyboard equivalents. Hierarchical menus are used for some items. There are several levels of zoom, so the entire page is easy to visualize while quickly switching to an actual size to create and modify text.

Ease of Learning
The program is more difficult to learn than some since using text frames is not an intuitive skill. There is a tutorial and sample files to help in learning.

Best Features
The word processor in Xpress is powerful enough to use in creating stories. There is a spelling checker, automatic hyphenation, multiple columns, and style sheets to make text entry fast and easy. There are a number of zoom levels to view the text as it is entered.

The program will import and export from and to most Macintosh word processors and graphics programs.

There is exact control over printing. Leading can be controlled to the nearest thousandth of a point and kerning to the nearest .005 em space. Text sizes may vary from 2 to 500 points.

Worst Features
The program is very expensive for a school.

The use of text frames is not intuitive.

Recommendation
The $795 list price buys a great deal of power, but if you already have a word processor and don’t have a color monitor or printer, much of that power might be wasted. The effective price is even higher since the program requires a hard disk.

If you are intending to do typesetting (with output on a very high resolution printer) the program is unbeatable for precision. Normally, schools do not need such precision.

Springboard Publisher 1.11 (Apple II)
Springboard $139.25

Description
Springboard Publisher combines a word processing mode, a drawing mode, and a page layout mode. The software combines the free entry of text into columns and the entry of text into frames. Most of the body text is entered into columns while banners, bumped quotes, captions, etc. are entered into text frames.

The program is versatile at importing both text and graphics. Text can be imported from Apple Writer, AppleWorks, Bank Street Writer, and ASCII. Graphics can be imported from Springboard’s Works of Art or ClipArt series and from hi-res pictures on either DOS 3.3 or ProDOS disks.
Text wraps around rectangular graphics areas or around text frames. Both graphics and text frames may be resized or moved. Both the normal text areas and the graphics frames may be have from one to nine columns. Text flows from top to bottom and left to right only. If another page is needed, one is created.

The graphics mode has a wide variety of tools and special effects.

Ease of Use
The program is difficult to use because of its slowness. Changing pages, switching to graphics or page layout modes, and even adding text take so long that the student would probably decide that it wasn't worth the effort.

Ease of Learning
Like most programs which use the Macintosh interface, this one should be easy to learn because of the pull-down menus. This is not the case, however, since the program's slowness would prevent the type of experimentation by which students usually learn such a program.

Best Features
The program has most of the features which would make a page layout program attractive.

The graphics mode is particularly full-featured. In addition to all of the normal graphics tools, the student may invert and flip images and change the perspective of a drawing.

Worst Features
The program is too slow and therefore too tedious. Scrolling just one line took over a minute in a three-column document with just two pages.

Entering text within existing text is extremely slow. The program does not keep up with the student's typing and loses characters.

Recommendation
This program is much too slow to consider for classroom use. The slowness makes it uninviting to experiment with a page layout, phrasing, etc. In almost all cases, physically pasting up a document would be faster. In addition, the tendency of the word processing mode to lose text which is typed in faster than it can keep up with (in some cases as slow as four characters per minute) makes the program inaccurate.

Springboard Publisher 1.06 (Macintosh)
Springboard $199.95

Description
Springboard Publisher for the Macintosh is a full-featured page layout program with powerful word processing and paint modules. The program combines automatic text flowing with frame-oriented text and graphic areas to allow easy formatting of a variety of documents. The program will import both text and graphics from a number of formats, but is quite capable as software for creating both.

The program allows easy switching from a full-page preview of the document to an actual size view. Text and graphic frames can be resized in the preview mode, but text editing must be done in actual size. Any text frame may be formatted to contain up to nine columns. A background text frame is automatically included on each page. This background frame will flow text automatically from page to page.

The word processor has most of the character formatting, tab styles, search and replace, and paragraph formatting of dedicated word processors. Because redrawing screens can be slow when text is added to a formatted document, the user may choose to enter text into a special text window. The text is typed into this window, then automatically inserted into the text and formatted.
The paint features of Springboard Publisher are impressive. The program contains virtually all of the features of other paint programs as well as such special effects as vertical and diagonal text, a zoom to allow editing at the pixel level, scaling, distortion, perspective, skewing, and free rotation.

The text runaround graphics is particularly impressive. Text will automatically flow around a graphics frame, but the user may instead flow the text automatically around just the graphic, a freeform shape, or a polygon.

Ease of Use
The program is very easy to use. While it uses a text and graphics frame design, the user may ignore both in laying out a simple publication by using the background text frame. Many of the commands are available through keystrokes and through tool palette selections.

Ease of Learning
Springboard Publisher is very easy to learn. The graphics and word processor commands are common to many Macintosh programs, and the user interface is uncluttered and intuitive. There is a separate manual with a simple tutorial and help is available through an on-line index.

Best Features
The graphics portion of the software is a very complete paint program with numerous special effects, tools, and options.

The word processing program has many of the features of dedicated word processors. A separate, optional text entry window is useful to prevent the slow updating of screens in a complex document.

Stories may flow automatically in a background text frame or they may be linked from text frame to text frame.

The wrap-around graphics feature is very powerful.

Worst Features
The program lacks a style sheet feature, spell checking, and hyphenation which are common in word processors.

The character formatting will not allow a font size larger than 72 points (one inch).

There is no kerning of character pairs.

Publisher will not import scanned images (TIFF) or EPS files.

Recommendation
Springboard Publisher is an excellent program, especially if you do not already own a word processor and a graphics program. The word processor is more than adequate and the paint program is excellent. As a page layout program, Publisher will probably do whatever is required of most schools. Be cautious of the limitations on importing scanned and PostScript images, however. As these formats become more common, the program's importing shortcomings may become more severe.
Publishers

Aldus
411 1st Ave South
Seattle, WA 98104
206-628-2352

Ashton-Tate
20101 Hamilton Ave.
Torrence, CA 90502
213-329-9000

Milliken
PO Box 21579
St. Louis, MO 63132
800-643-0008

PinPoint Software
PO Box 13323
Oakland, CA 94661
415-654-3050

Quark
1983 Landings Dr.
Mountain View, CA 94103
800-356-9363

Software Publishing Company
1901 Landings Dr.
Mountain View, CA 94039
415-962-8910

Springboard
7808 Creekridge Cr.
Minneapolis, MN 55435
800-654-6301

The Learning Company
6493 Kaiser Drive
Fremont, CA 94555
800-852-2255

Timeworks, Inc
444 Lake Cook Rd.
Deerfield, IL 60015
312-948-9200
The Northwest Regional Educational Laboratory (NWREL) is an independent, nonprofit research and development institution established in 1966 to assist education, government, community agencies, business and labor in improving quality and equality in educational programs and processes by:

- Developing and disseminating effective educational products and procedures
- Conducting research on educational needs and problems
- Providing technical assistance in educational problem solving
- Evaluating effectiveness of educational programs and projects
- Providing training in educational planning, management, evaluation and instruction
- Serving as an information resource on effective educational programs and processes

Including networking among educational agencies, institutions and individuals in the region

### Board of Directors

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<td>Washington Superintendent of Public Instruction</td>
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<td>Earl Ferguson</td>
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<td>Business Woman</td>
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<tr>
<td>Doyle E. Winter</td>
<td>(Vice Chairman)</td>
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### Center for National Origin, Race, and Sex Equity

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- Networking among educational agencies, institutions and individuals in the region

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### NWREL Headquarters

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### Alaska Office

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