

Applying Typographic Spacing to Word-Processed Documents

By Dr. Jerry Waite, University of Houston, College of Technology

Many word-processing operators use rules and conventions that keyboardists developed over many years of experience using typewriters. Unfortunately, typewriters are fundamentally limited machines that cannot produce the same quality of type that professional printing companies generate using typesetting machines. For example, traditional typewriter platens can only move the paper up by a predetermined amount—single-, one and one half-, or double-spacing. In contrast, typesetting machines have always been able to place varying amounts of space between lines. In addition, typewritten columns tend to be very wide—about 6-6 1/2 inches—because it is quite difficult to create narrow columns using typewriter technology. Wide lines require the reader's head to move to the right in order to scan each line. Unfortunately, moving the head back to the left may cause the reader to mistakenly skip the next line. Typesetting machines have always been able to set lines of type in any easy-to-read width.

Due to the limitations of typewriters, typewritten pages tend to be static, boring, and somewhat hard to read. Because early word-processing programs were essentially electronic typewriting programs, many of the inherent limitations of the typewriter were transferred to the computer. As a result, word-processed pages often look just as bad as if they had been typed.

Today's word-processing programs have none of the limitations of the typewriter. In fact, contemporary word-processing programs turn personal computers into a highly sophisticated typesetting machines. However, keyboardists must forget just about every typing rule and learn the conventions of typesetting instead.

This article concentrates on the application of aesthetically pleasing spacing to

word-processed documents. There are four factors that should be considered when spacing type: vertical spacing (known as leading), horizontal spacing (known as letter- and word-spacing), indents, and column width.

Leading

Leading, which rhymes with heading and not feeding, is the space between lines of type. It gets its name from traditional typesetters who had to put strips of lead between lines of metal type to space them out. Leading is measured from the bottom of an uppercase letter (known as the baseline) on one line to the baseline of the next line (Figure 1). It is analogous to "line spacing" on a typewriter.

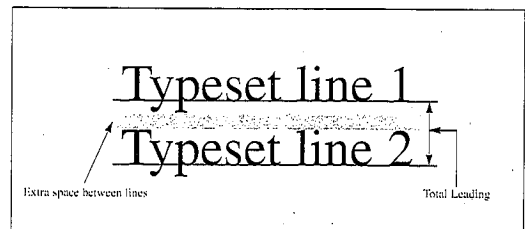


Figure 1: The measurement of leading.

Typewriter mechanisms allowed minimal leading choices. Today, however, most word-processing programs provide an almost infinite number of leading selections, either positive (extra space placed between lines) or negative (space between lines is removed). As a rule-of-thumb, leading for text type that is set in a combination of uppercase and lowercase letters should be 1.20-1.25 times the type size. Thus, if 10 point type is chosen (a point is 1/72 of an inch), the leading should be set to 12.0-12.5 points.

Multiline headlines, especially those consisting of only uppercase letters, should generally be set with much less leading than text. Negative leading is often appropriate for headlines. For example, if the leading rule-of-thumb was

applied to 40 point headline type, the leading would be set to about 50 points. If such a headline were set in only uppercase letters, the lines would look too far apart. The leading adjustment could be set to 35 points (which is a negative leading of 5 points) to move the rows of type closer together (Figure 2).

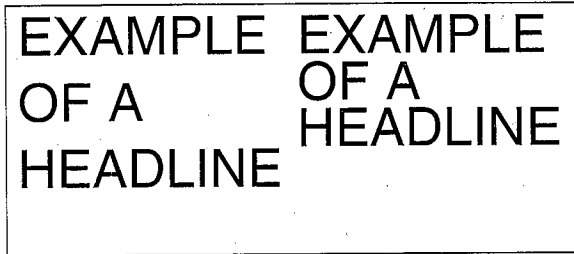


Figure 2: Applying negative leading to a headline.

Many word-processing programs provide a method to automatically add an additional amount of leading after the return key has been pressed. This additional leading helps readers distinguish one paragraph from another and takes the place of double-spacing between paragraphs. As a rule-of-thumb, this additional leading—which can be placed either before a new paragraph or after the previous paragraph—can be set to about one half the size of the type. For example, if you are setting 12 point type, set the space before or space after adjustment to about 6 points.

Horizontal Spacing

Horizontal spacing involves two factors: space between words and space between letters. Wordspacing generally becomes a problem when justified alignment is chosen. When lines are justified, the word-processing program inserts extra space between words so that both the left and the right margins align. This often leads to ugly wide gaps between words, called lakes, especially if the columns of type are narrow. To remedy this problem, the first word on a line following a line containing a lake should be hyphenated to move as many syllables of the word as possible to the previous line. Alternatively, lakes can be eliminated by choosing left alignment (Figure 3).

Wordspacing generally becomes a problem when justified alignment is chosen. When lines are justified, the word-processing program inserts extra space between words so that both the left and the right margins align. This often leads to ugly wide gaps called lakes, especially if the columns of type are narrow. To remedy this problem, hyphenate words or choose left alignment.	Wordspacing generally becomes a problem when justified alignment is chosen. When lines are justified, the word-processing program inserts extra space between words so that both the left and the right margins align. This often leads to ugly wide gaps called lakes, especially if the columns of type are narrow. To remedy this problem, hyphenate words or choose left alignment.	Wordspacing generally becomes a problem when justified alignment is chosen. When lines are justified, the word-processing program inserts extra space between words so that both the left and the right margins align. This often leads to ugly wide gaps called lakes, especially if the columns of type are narrow. To remedy this problem, hyphenate words or choose left alignment.
---	---	---

Figure 3: Remediating a lake.

A special wordspacing problem becomes evident when words are set in all uppercase letters. If a standard space-bar space is used between uppercase words, the words will appear too close together. A simple way to solve this problem is to insert two spaces between each pair of uppercase words.

Many word-processing programs also provide for the adjustment of the space between letters. Letterspacing can be adjusted globally or between certain pairs of letters. Global letterspacing can make all the characters closer together or farther apart (Figure 4).

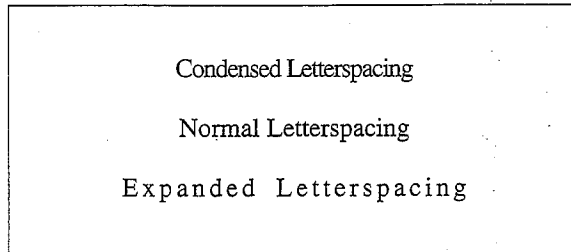


Figure 4: Condensed and expanded letterspacing.

Altering the space between two particular characters, called kerning, adjusts for the awkward spacing that is inherent when certain pairs of characters are adjacent to each other. For example, awkward spacing can cause words containing character combinations such as "LT" to appear as if they are two words—"HILTON" can appear to be "HIL TON" (Figure 5). Proper use of kerning can increase the legibility and unity of words.

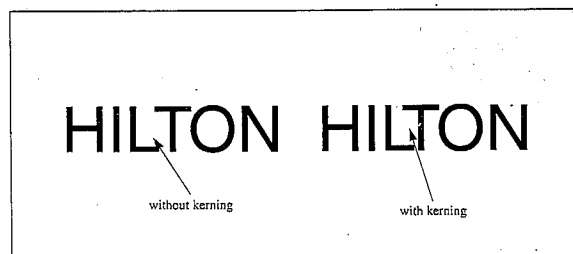


Figure 5: The effect of kerning.

Indents

Typists are often taught to indent the first line of a paragraph 1/2". Not true in typography! The typographic norm for paragraph indentation is one to one and one half times the type size. For example, if 12 point type is being used, a paragraph indent should be 12-18 points (about 3/16"-1/4"). Or, if 18 point type is being set, the paragraph should be indented 18-27 points (about 1/4"-3/8"). See Figure 6 for decimal inch indents for various type sizes. Alternatively, many word-processing programs permit indent values to be entered in points rather than inches.

(Continued on page 11)

(Cooperating Teachers continued from page 9)

Implications

Teachers who accept the responsibility of working with student teachers can be marvelous mentors, but the mentoring process does not happen by accident. It takes a great deal of time and work. During the planning stages, it is imperative that careful consideration be given as to the best possible placement for each student teacher. After that placement has been determined, the cooperating teacher must prepare the students for the student teacher's arrival.

Once the student teacher is on campus, the cooperating teacher must spend time initially in explaining policies, grading procedures and methods, planning and

spacing of activities, and the like. During the entire student teaching period, the cooperating teacher must observe carefully and provide the guidance and feedback necessary for the student teacher to do an effective job. Open communication and a caring attitude can make the difference between a difficult situation and a fantastic experience for the student teacher. Magnificent mentors are those cooperating teachers who help create that fantastic experience.

(Harriet Augustin is a Lecturer in the Management and Marketing department at Southwest Texas State University in San Marcos, Texas.)

(Applying Typographic Spacing continued from page 7)

TYPE SIZE IN POINTS	FRACTION OF AN INCH	DECIMAL INCH
7	7/72	.097
8	8/72	.111
9	9/72	.125
10	10/72	.139
11	11/72	.153
12	12/72	.167
14	14/72	.194
18	18/72	.250
24	24/72	.333

Figure 6: Decimal inch equivalents for indents.

A special type of indent, called a drop cap, is when the first letter of a paragraph fills two or three lines rather than just one (see Figure 7). The lines adjacent to a drop cap are indented to make room for the enlarged character. Drop caps are typographic embellishments that draw attention to important paragraphs. Like any other attention-getting technique, drop caps should be used sparingly and should never be used at the top of a column unless the column is the beginning of the story.

Column Width

Typists generally set columns of type about 6 1/2" wide, leaving margins of about 1 inch on each side of a sheet of typewriter paper. Unfortunately, 6 1/2" wide lines are too long to be comfortably read.

Generally speaking, larger sizes of text type should be set on wider lines than smaller sizes. Graphic designers often suggest a general rule for column width: one and one half to two times the width of the lowercase alphabet of the font being used. To use this rule, the computer should be set with the size and font to be used in the document. Then the operator should key-in, using lowercase letters, abcd....z two times. The page should then be printed. The first "a" through the second "l" should be measured. This is one and one half alphabets. The distance from the first "a" through the second "z" is two alphabets. The appropriate column width should be between those two measurements. If the column width determined by the above procedure is narrow enough, two or more columns can be placed on each page. Multiple narrow columns are usually more legible than one too-wide column.

Summary

This article has presented some basic principles for the proper spacing of type when using word-processing software. These principles include conventions affecting the use of leading, horizontal spacing, indents, and column width. Computer operators can use these principles to create more effective and aesthetically pleasing documents.

(Dr. Jerry Waite is an Assistant Professor in the College of Technology ITEC Dept. at the University of Houston.)

A special type of indent, called a drop cap, is when the first letter of a paragraph fills two or three lines rather than just one. The lines adjacent to a drop cap are indented to make room for the enlarged character. Drop caps are typographic embellishments that draw attention to important paragraphs. Like any other attention-getting technique, drop caps should be used sparingly and should never be used at the top of a column unless the column is the beginning of the story. Drop caps are typographic embellishments that draw attention to important paragraphs. Like any other attention-getting technique, drop caps should be used sparingly and should never be used at the top of a column unless the column is the beginning of the story.

Figure 7: Two drop caps.