



Computer Typography Basics

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Computer Typography Basics

Ever since the first scribes lettered books by hand centuries ago, the first goal of typography was *readability*. If the typography makes the information on the page harder to read, it does not matter how “pretty” a page layout is or how “unique” a font selection is, the page has failed in its main duty: to transfer information to the reader in an efficient manner. Jan White, a well-respected publication designer states “...we prefer—logically and visually—a sense of order and structure. These basic ideas can make a reader’s life easier, and they can make your job as a designer easier, too.” (*The Grid Book*, Letraset 1987)

Writing a report may not appear to require much design knowledge, but as soon as one chooses a certain font or adjusts the margins to create more white space, that person becomes a designer. By learning about the differences between fonts, how fonts “work” on the computer, and how to use the various computer font options, the “designer” can produce a report that not only contains useful information, but is easy to read, and therefore, easy to understand.

Font Categories

Fonts come in many different designs. Some of these differences are subtle, while others stand out like the proverbial “sore thumb.” Many references subdivide type into only two major categories: *serif* and *sans serif*. However, these simplified categories are not adequate for the great variety of fonts that one might encounter on today’s computers. This report will use these expanded categories to clarify the difference:

- Serif
- Sans Serif
- Mono-Spaced
- Display
- Script
- Text
- Dingbats

Serif

Serif fonts are the most common text or “body” copy font. They can work nicely for headline fonts, as well. “Serifs” are the little feet or arms that hang off the end of letter strokes, and typically add a thick/thin look to the letter. Serif fonts are considered the easiest fonts to read and come in three sub-categories: *Oldstyle*, *Modern*, and *Square Serif*.

OLDSTYLE

Oldstyle is based on classical Roman inscriptions. The letters are very open, wide, and round with pointed serifs and a pleasing contrast between the heavy and light strokes.

MODERN

Their name notwithstanding, *Modern* fonts are based on fonts designed over 200 years ago. They have a greater degree of mechanical perfection than Oldstyle fonts, and a greater distinction between the heavy/light strokes, and thin/squared off serifs.

SQUARE SERIF

Slab Serifs are a contemporary style used mainly for small amounts of text, such as advertising copy, subheads, and headlines. The letters have square serifs and mostly uniform strokes with little contrast.

Oldstyle Modern Square Serif

Figure 1: Examples of Serif fonts

Sans Serif

As the name implies, *Sans Serif* fonts are “without serifs,” and usually have an overall even stroke weight, which creates little contrast for the letters. Sans Serif fonts can evoke a more modern look for a report, but can be harder to read than Serif fonts. Although generally used for small amounts of copy, subheads, and headlines, Sans Serif can be used for larger amounts of body copy, if applied with care.

As the name implies, Sans Serif fonts are “without serifs,” and usually have an overall even stroke weight, which creates little contrast for the letters. Sans Serifs fonts can evoke a more modern look for a report, but can be harder to read than Serif fonts.

Example of a paragraph set in a Sans Serif font (Futura).

Sans Serif Sans Serif Sans Serif

Figure 2: Examples of Sans Serif fonts

Display

Display and *Decorative* fonts are designed to be used as attention-getting headline fonts. They should rarely, if ever, be used as body copy fonts.



Figure 4: Examples from thousands of different display fonts set at 46pt.

Script

Script fonts are designed to mimic handwriting, therefore, the letters are designed to touch one another. These fonts may be the more traditional type used for formal invitations. Script fonts should *never* be used in all capital letters.



Figure 5: Examples of script fonts.

Text

Based on the hand-drawn letters made by early monks for religious books, *Text* fonts have an “Old-World” feel to them. They are mostly used for certificates, diplomas, and invitations. As with *Script* fonts, they should not be used in all capital letters.

Old English Text

DO NOT SET IN ALL CAPS!

Figure 6: Examples of text fonts.

Mono-Spaced

Most fonts are proportionally spaced; that is, smaller characters take up less space than larger ones. For example, the letter “i” is not as wide as the letter “M.” In contrast, *mono-spaced* fonts, which are usually typewriter-style fonts, take up the same amount of space regardless of the actual letter.

This is an 18 point font (proportional)
This is an 18 point font (monospaced)
Courier is a common monospaced font

Figure 3: Examples of Mono-Spaced fonts

Dingbats

Dingbats are symbols that are small pieces of art used to enhance the design of the text or page. While Zapf Dingbats and Wingdings are the most common dingbats, there are hundreds, if not thousands, of different designs available.

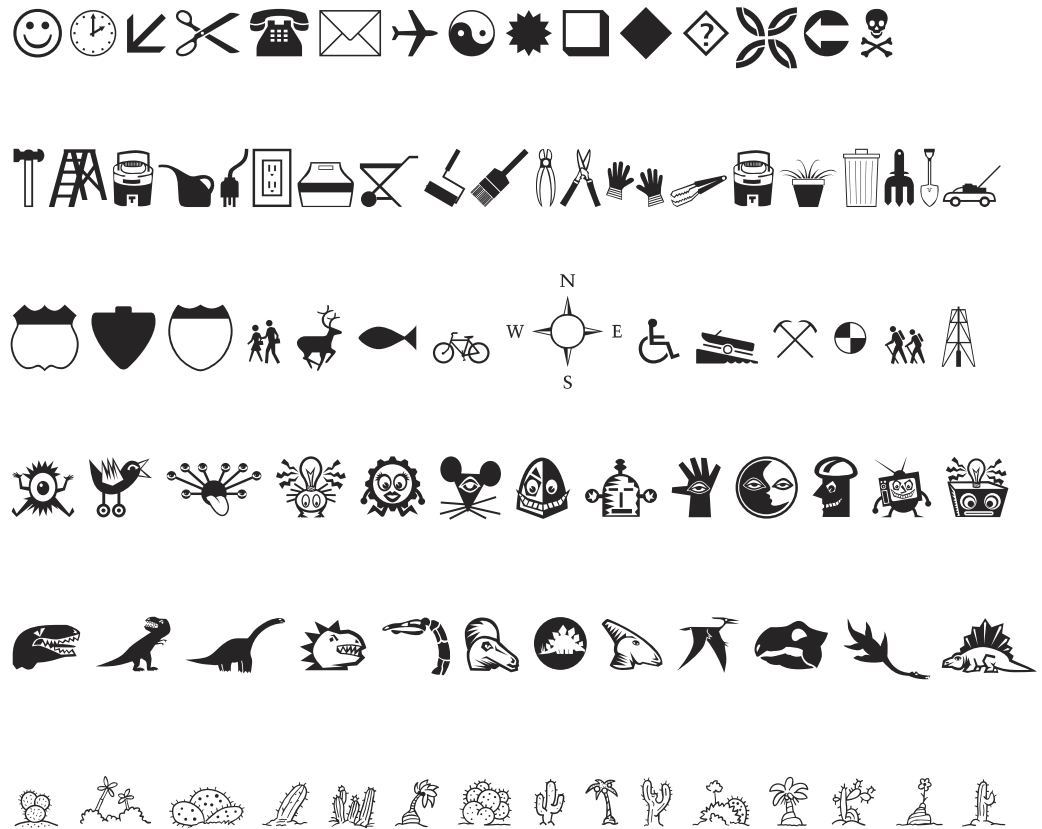


Figure 7: Examples of Dingbat fonts.

Font Styles and Families

Bold and italic versions are available on the computer for many fonts. While this may work for most fonts, not all fonts were designed to be used in bold and italic versions. A common error on the part of the new computer designer is to “bold-a-bold,” or make a bold version of a font extra bold by the style format—or to make a bold or italic version of a font that has *no* bold or italic version. The problem is that the computer tries to make the font bolder, but only ends up distorting the original characters.

Font Styles

Many display, script, and text fonts only come in the “plain” version, even if they *appear* bold or italic after styling has been applied. To make the issue more confusing, some fonts only come in plain and italic versions; plain and bold versions; or plain, italic, and bold (but no bold italic) versions.

In programs, which have been around for awhile—such as Microsoft Word, QuarkXPress, PageMaker, and FrameMaker—the software does not know if a font has a bold or italic version, and will let the user make whatever style formatting he or she wishes. Whether the font styling actually exists (and will print) is another matter. The only way to be sure that a font has the correct variation is to use the font weights from the font menu, and *not* from the style menu or the “B” and “I” buttons on the format ruler.

Newer programs, such as InDesign, Illustrator, and Photoshop, allow only the styles that are currently installed on the computer. So, if a bold version of a font is not currently installed (whether it exists or not), it is not available as a font style selection.

Plain *Italic* **Bold** ***Bold Italic***



Figure 8: Style ruler from Microsoft Word and QuarkXPress 6.0.

Font Families

The term “*font families*” refers to fonts of the same design, but with a difference in weight from one font to another. As previously mentioned, many fonts only come in one weight—plain. However, many body-copy fonts are available in:

- plain (or Roman),
- italic (usually a Serif font) or oblique (usually a Sans Serif font),
- bold, and
- bold italic or bold oblique.

A number of these fonts have additional weights to provide the designer an even greater choice. Also, each one of the weights may have an italic or oblique version. Some popular fonts may even have matching condensed and extended versions, too.

Some of the weights, in order from the lightest to heaviest, include:

- Extra Light, Ultra Light, or Extra Thin
- Thin or Light
- Roman or Book
- Medium or Regular
- Demi-Bold or Semi-Bold
- Bold
- Heavy, Extra Bold, Black or Super Bold

The weights for a font are named by the font designer and follow no set rules. Some designers may consider a thin font heavier than a light font, or an extra bold font heavier than a black font. Even between standard fonts and condensed fonts, there could be a name difference for the same weights. For example, a font may have a “Book” weight for the standard font, which may take the name “Medium” in the condensed version. Again, always use the font weights from the font menu for the best results.

While it is acceptable to use multiple fonts from a single family, try to keep the font categories to one or two fonts.

Standard Weights

Ultra/Extra Light *Oblique*

Thin *Oblique*

Light *Oblique*

Roman/Book/Regular *Oblique*

Medium/Demi-Bold *Oblique*

Bold *Oblique*

Heavy/Extra Bold *Oblique*

Black/Super Bold *Oblique*

Condensed Weights

Ultra/Extra Light *Oblique*

Thin *Oblique*

Light *Oblique*

Roman/Book/Regular *Oblique*

Medium/Demi-Bold *Oblique*

Bold *Oblique*

Heavy/Extra Bold *Oblique*

Black/Super Bold *Oblique*

Extra Black *Oblique*

Extended Weights

Ultra/Extra Light *Oblique*

Thin *Oblique*

Light *Oblique*

Roman/Book/Regular *Oblique*

Medium/Demi-Bold *Oblique*

Bold *Oblique*

Heavy *Oblique*

Black *Oblique*

Figure 9: Examples of various weights and styles from the Helvetica Neue family (total cost: apx. \$1250)

Identifying and Selecting a Font

Deciding what size to use can be easier with an understanding of the things that affect readability. The most crucial factor is the *x-height* of the lowercase letters and their relationship to the uppercase and ascender letters.

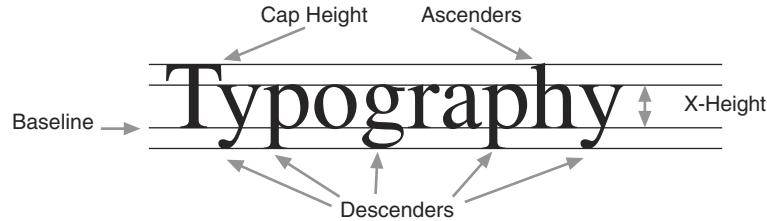


Figure 10A: All characters must “rest” along a **baseline**. Letters below the baseline are called **descenders**, and letters above the x-height are called **ascenders**. The **x-height** is the space between the top of the non-ascender portion of the lower case letters and the baseline.

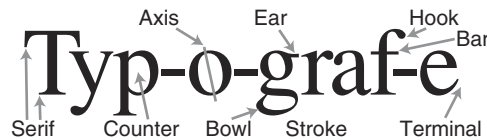


Figure 10B: Identifying individual parts of characters (glyphs).

The relationship between the uppercase/ascender letters and the x-height depends solely on the design of the font. Fonts with a large x-height, or “tall” lower case characters, are easier to read than fonts with small x-height characters. Another critical factor between different fonts is the depth of the descenders and their shape.



Figure 11: Note the differences in x-height, ascenders, and descenders in these fonts set at 24pt.

A bit of trivia: Most people know that the terms “uppercase” and “lowercase” refer to capital and minuscule (small) letters, but few people realize that these are actually typesetting terms. In the past, when typesetters had to set each letter by hand, they stored the letters in big cases, stacked one on top of the other. To keep the letters organized, the typesetters stored the capital letters in the top (upper) case, and the small letters in the bottom (lower) case.

Special Styles

Using computers offers the opportunity to apply many special effects to type that years ago would have cost thousands of dollars from a typesetting house. Unfortunately, this ease of use also has meant abuse, making for some hard-to-read computer typography.

UNDERLINING

Most programs handle underlining incorrectly; in addition, the user may not have any options to adjust the settings. If possible, the underlines should be adjusted (lowered) so they do not touch any of the characters. Underlines come in two styles: *straight* (complete underline), and *word* underline. As its name implies, word underline only affects words and not the spaces between them.

This is bad: jgppqy This is good: jgppqy.

Figure 12: Examples of Underlining

SMALL CAPS AND ALL CAPS

Small caps are good for subheads or for the first line of a paragraph, but like other options, they should not be overused. Text in all caps is harder to read and only should be used for short headlines or subheads. All caps should *never* be used for long sentences or for emphasis (except in e-mail on the internet, due to lack of formatting capabilities).

This is the Text as Entered

THIS IS THE TEXT SET TO ALL CAPS

THIS IS THE TEXT SET TO FAKE SMALL CAPS

THIS IS THE TEXT SET AS TRUE SMALL CAPS

Figure 13: Examples of All Caps and Small Caps.

SPECIAL-PURPOSE STYLES

Many styles for making footnotes, references, and mathematical formulas exist in publishing programs. Usually, the user can alter the default settings in the program to change the affected character size and baseline shift (how far up or down the letter moves).

Superscript¹

Subscript: H₂O

Baseline Shift

Negative & Positive Skew

Strike-Through

~~Double Strike-Through~~

Figure 14: Examples of special-purpose styles.

TEXT SCALING

Many programs allow the user to create a pseudo-condensed or pseudo-extended font by *horizontally* squeezing or stretching a font. This distorts the original design of the font. If possible, the user should select the true condensed or extended font or alter the design so it does not require the fake font.

Squeeze the Font Pseudo-Condensed (Scaled to 82%)
Squeeze the Font True Condensed Font
Stretch the Font Pseudo-Extended (Scaled to 128%)
Stretch the Font True Extended Font

Figure 15: Examples of true condensed, horizontally expanded fonts, and scaled fonts.

Fonts also can be *vertically* stretched. The only advantage to this method, rather than resizing the type, would be to keep the type *technically* the same size.

Stretch the Font 50% or 200%

Figure 16: Examples of vertically scaled type; of course, other settings are available.

OUTLINE AND SHADOW

Perhaps the most abused styles in older desktop publishing programs are *Outline* and *Shadow*—overused to the point of being clichéd—avoid them if possible. Newer programs do not offer the traditional outline or shadow settings at all, but have more advanced settings.

Outline Outline Outline
 Outline Outline Outline
Bad Outline
Shadow
Shadow

Figure 17: Examples of advanced Outline and Shadow formatting from InDesign

Font Sizes

Fonts come in many different sizes, and use a system of measurement called *points*. Computers use 72 points to one inch; traditional typography used 72.27 points to an inch, but that measurement is hardly used anymore.

Two different font designs at the same point size may actually have different physical sizes. The correct size for a font depends on its usage, but is somewhat arbitrary. Generally, body copy should be around 9–12 points, depending on the font used, the audience, and the width of the column. Some fonts are easily read at smaller sizes, while others need to be larger. Audience age should be considered; the older the audience, the larger the type. Also, the longer the column width, the larger the body type size.

A column of type usually is about 50 characters across, and no more than 65 characters. Type that is too small will “cram” too many letters per line and make the copy hard to read. Remember, type that is hard to read may not be read at all.

6 7 8 9 10 11 12 14 16 18 20 24 28
32 36 42 48 54
60 72 84 96
2000

Figure 18: Samples of some common type sizes; most programs allow a variety of font sizes. For example, Adobe InDesign can set type from 0.1 to 1296 points.

Character and Word Spacing

Many times, simply typing in the text and formatting the font, size, and line spacing is enough. However, depending on the program used, extra attention is needed. Larger type sizes need adjustments to the space between characters; and paragraphs need to be adjusted to eliminate “widows” and “orphans.”

Kerning

Inter-character spacing, known as *kerning*, creates a more pleasing look to the text. Most word processors do not allow kerning adjustments and most page-layout programs apply kerning automatically; however, certain letter combinations may require manual adjustments. Some of these letter combinations include most lowercase letters, and uppercase letters: F, I, K, L, O, P, Q, T, V, W, X, and Y. Kerning also is required when using all uppercase letter combinations such as VA and WA.

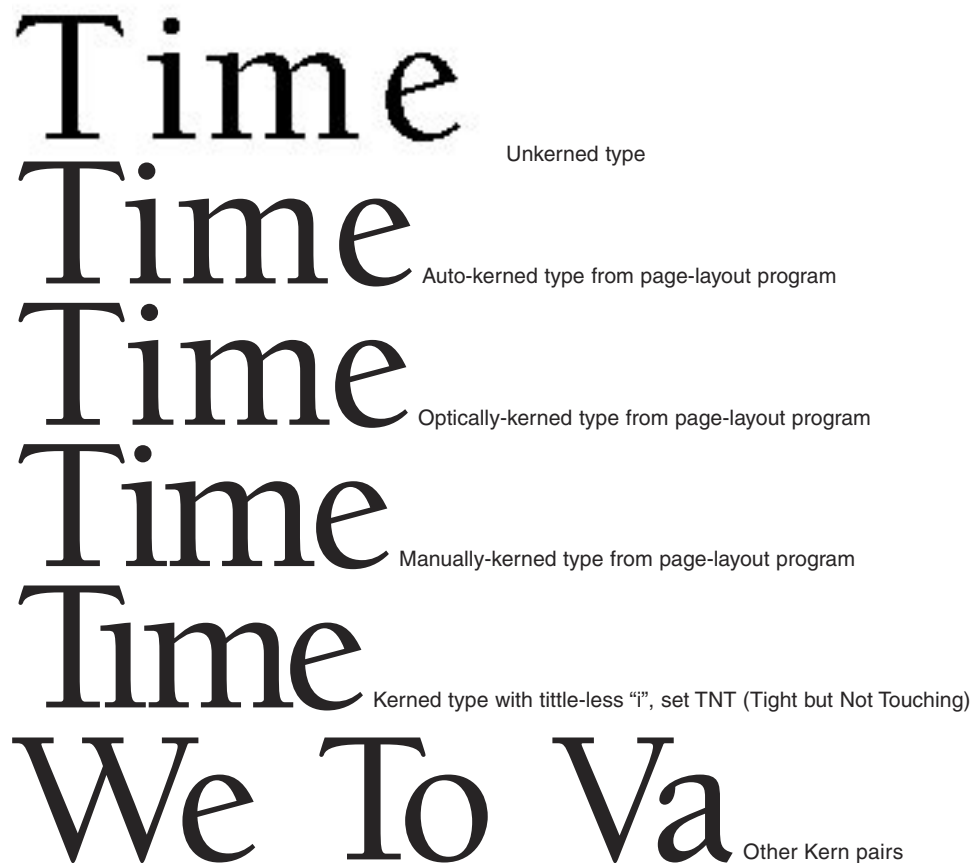


Figure 19: Examples of kerning.

Tracking

The adjustment of word spacing is called *Tracking*. It is similar to kerning but refers to the adjustment of a selection of characters, words, and spaces. Its main purpose is to make type fit a required space without altering the type size or line spacing. Tracking can be either *negative*, making the words closer together; or *positive*, making the words farther apart. An important use for tracking is to fix single words (or 2–3 short words) at the end of a paragraph (sometimes called *orphans* or *danglers*). Although not always avoidable, the problem usually can be solved with some minor tracking. Of course, this should be done only after all editing is complete.

Ø Tracking

The adjustment of word spacing is called Tracking. It is similar to kerning but refers to the adjustment of an entire selection of characters, words, and spaces. Its main purpose is to make type fit a required space without altering the type size or line spacing. Tracking can be either *negative*, making the words closer together; or *positive*, making the words farther apart.

-5 Tracking

The adjustment of word spacing is called Tracking. It is similar to kerning but refers to the adjustment of an entire selection of characters, words, and spaces. Its main purpose is to make type fit a required space without altering the type size or line spacing. Tracking can be either *negative*, making the words closer together; or *positive*, making the words farther apart.

-10 Tracking

The adjustment of word spacing is called Tracking. It is similar to kerning but refers to the adjustment of an entire selection of characters, words, and spaces. Its main purpose is to make type fit a required space without altering the type size or line spacing. Tracking can be either *negative*, making the words closer together; or *positive*, making the words farther apart.

-25 Tracking

The adjustment of word spacing is called Tracking. It is similar to kerning but refers to the adjustment of an entire selection of characters, words, and spaces. Its main purpose is to make type fit a required space without altering the type size or line spacing. Tracking can be either *negative*, making the words closer together; or *positive*, making the words farther apart.

+5 Tracking

The adjustment of word spacing is called Tracking. It is similar to kerning but refers to the adjustment of an entire selection of characters, words, and spaces. Its main purpose is to make type fit a required space without altering the type size or line spacing. Tracking can be either *negative*, making the words closer together; or *positive*, making the words farther apart.

+10 Tracking

The adjustment of word spacing is called Tracking. It is similar to kerning but refers to the adjustment of an entire selection of characters, words, and spaces. Its main purpose is to make type fit a required space without altering the type size or line spacing. Tracking can be either *negative*, making the words closer together; or *positive*, making the words farther apart.

+25 Tracking

The adjustment of word spacing is called Tracking. It is similar to kerning but refers to the adjustment of an entire selection of characters, words, and spaces. Its main purpose is to make type fit a required space without altering the type size or line spacing. Tracking can be either *negative*, making the words closer together; or *positive*, making the words farther apart.

Figure 20: Examples of tracking settings.

Note: in FrameMaker, tracking is called Spread.

TRACKING FOR EFFECT

Tracking can be used as a design tool. Like all design tools, it can be overused and abused. Remember the goal: readability.

Ø Tracking

TRACKING AS A DESIGN TOOL

+150 Tracking

TRACKING AS A DESIGN TOOL

+300 Tracking

TRACKING AS A DESIGN TOOL

Figure 21: Examples of tracking.

Word & Letter Spacing for Justified Type

Another chance to automatically affect the word, letter, and character spacing is through the justification settings. This menu allows a minimum, optimum, and maximum percentage that the program will use when setting justified text.

Special Glyphs (Characters)

Most computers have an option for using foreign characters and special symbols. Like most special characters, they can be difficult to access for the beginner, but the user can reference a manual or use the on-screen character locator*.

**InDesign has a built-in Glyph palette, making the special character selection very easy. For other programs, use either Key Caps (Macintosh) or Character Map, available in the system accessories/utilities folder.*

Typical foreign characters include:

ü ä ë ï ö ù â ê î ô ù à è ì ò ú á é í ó ã ñ õ å ç
Û Ä Æ Æ Ö Û Â Ê Î Ô Ù À È Ì Ò Ú Á É Í Ó Ã Ñ Õ Å Ç

Common symbols include:

! ¡ ¢ £ ¤ ¥ ¦ § ¨ © ª « ¬ ® ¯ ° ± ² ³ ´ µ ¶ · ¸ ¹ º » ¼ ½ ¾ ¿
∫ ∼ μ ≤ ≥ ÷ / € < > fi ‡ ° ± „ ’ ‰ Ø Π » ” , , ◊ ı ~ - ~ ı

Common ligatures include:

fi fl ff ffi ffl fb lb lh ffi fl ffl fj ffj Th œ Œ æ Æ é ct sp st

Common swashes include:

À Á Â Ã Ä Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã

Common number formats include:

Normal: 1234567890 Oldstyle: 1234567890

Line Spacing (Leading)

Leading, or line spacing, refers to the amount of space between lines of type. As with type size, there are no set rules for how much line spacing to use; however, there are some major factors to consider:

- The font used—some fonts require more line spacing than others to keep their ascenders and descenders from touching.
- The line length—longer lines require more leading for easier reading.
- The type size—the larger the type size, the more line spacing is required. This rule mostly refers to body copy; headlines, which are normally set larger, may actually be set with tighter line spacing.

A bit of trivia: *Leading*, pronounced “led-ing”, derives from the days when type was set by hand and typesetters used thin strips of lead to space apart the rows of letters.

Depending on the program one is using, leading may be considered a character format (a line-by-line selection, allowing multiple settings in a single paragraph) or a paragraph format (one setting for an entire paragraph). If you are using a program that supports character-based leading, select the entire paragraph to ensure a uniform setting.

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Palatino 9/9

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Palatino 9/11

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Palatino 9/10

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Palatino 9/12

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Figure 22: Comparison of 9 pt. Palatino and different line spacing. Which is easiest to read?

Palatino 9/10

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Palatino 9/12

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Adobe Garamond 9/10

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Helvetica 9/10

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Helvetica 9/12

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Futura 9/10

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Futura 9/12

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Figure 23: Comparison between line length, line spacing, and fonts. Even though Helvetica and Futura are both Sans Serif fonts, notice how Futura is almost touching even at the 9/10, size while Helvetica is not.

The designer can use computers to set line spacing by a number of methods, depending on the program used. Word processors commonly use multiples of line spacing, such as single line space, 1.5 line space or double line space. This method is adequate for simple reports, but for complex formats, a higher degree of control is required. Most page-layout programs and word processors include the ability to specify an exact line space setting.

Line Spacing for Headlines and Subheads

More advanced layout programs provide additional options, including specifying line spacing by a percentage of the type size and by adding on a set amount to the type size. Normally, the percentage option, or auto leading, should be avoided because it can make larger heads look too spread out. When in doubt, use the exact method for *all* line spacing.

Auto Leading (120% of type size):

**This is a headline
set in 18 points**

**This is a headline
set in 24 points**

**This is a
headline set
in 36 points**

**This is
set in 48
points**

Leading set 2 points over type size:

**This is a headline
set in 18 points**

**This is a headline
set in 24 points**

**This is a
headline set
in 36 points**

**This is
set in 48
points**

Figure 25: Comparison of percentage and absolute line spacing.

Leading and Baseline Grid

Baseline grid alignment is used to ensure that text cross-aligns across columns or, less importantly, across pages. The baseline settings usually are set to the body copy's leading under the file's document preferences. Then, paragraphs are locked to the baseline grid during formatting.

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced "ten over twelve." This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

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Figure 26A: Columns of text not cross aligning.

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced "ten over twelve." This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced "ten over twelve." This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Figure 26B: Columns of text cross aligning using Baseline Grid.

HEADLINES AND SUBHEADS

Headlines' and subheads' line spacing should be set in multiples of the body text's line spacing. For example, if the body text is set 12/14 (12 pt. text with 14 pt. line spacing), then a subhead could be set at 14/14 and a headline could be set at 24/28 (2 x 14 pts.). The point size of the type is not as important as keeping the line spacing in multiples. This creates a symmetrical look to the page, and on double-column pages, it keeps the type aligned across the page. Line spacing for headlines and subheads can be combined with paragraph spacing settings for even more options. (See *Paragraph Spacing for Subheads*.)

Paragraph Alignment

Alignment refers to the side of the page or column with which the text is even. For example, text that is even with the left side of the page margin or column is said to be “flush left,” “aligned left,” or sometimes “rag right” since it is *uneven* (or ragged) on the right side. Other options are: flush right (also called rag left), centered, justified (flush on both left and right sides, except for the last line, which is flush left), and forced justified (which justifies even the last line). Most body text is either flush left or justified. Headlines and subheads are normally flush left or centered; however, centered text should be used with care. Flush right should only be used for design purposes, and then only for small amounts of text. Forced justified is rarely used.

FLUSH LEFT

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

FLUSH RIGHT

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

CENTERED

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

JUSTIFIED

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

FORCED JUSTIFIED (from PageMaker and QuarkXPress)

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

FORCED JUSTIFIED (from InDesign)

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Figure 27: Examples of paragraph alignment.

Note: For Justified text, InDesign also offers the option to align the last line as flush right and centered.

Paragraph Spacing

Paragraph Spacing is an automatic space between each paragraph that is applied when starting a new paragraph; once set, it can apply space either above the paragraph or below it. Paragraph spacing is a more elegant way to space out paragraphs than simply double spacing returns because the settings can be adjusted globally or by fractional line spaces. More importantly, the space is not inserted when a paragraph falls at the end of a page, whereas traditional double spacing would leave the extra paragraph return at the beginning of the next page.

Palatino 9/10 with 5 pts Paragraph Spacing

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.”

This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Palatino 9/10 with 10 pts Paragraph Spacing

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.”

This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Figure 28: Examples of different settings of paragraph spacing.

Paragraph Spacing for Subheads

As previously mentioned, subheads should be set in multiples of the line spacing. However, *where* the space is applied is up to the designer. For example, a subhead could be set at 14/14 with paragraph spacing set at 10 points above and 4 points below. The total would still be a multiple of 14 (14 pts. line spacing + 10 pts. above + 4 pts. below = 28 pts.). Keep in mind that splitting paragraph spacing can cause problems with locking to a baseline grid. Paragraph spacing also is used when applying paragraph rules.

Example 1

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together.

This is a subhead set in 14 points

They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points.

Example 2

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together.

This is a subhead set in 14 points

They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points.

Figure 29: The first example is set with 14 pts. above the subhead; the second is set with 10 pts. above and 4 pts. below. Both subheads are equal multiples of the 14 pt. line spacing; notice how the bottom paragraphs line up. *Note:* In FrameMaker, paragraph spacing from two paragraphs is not “doubled up”; the paragraph with the *greatest* amount of spacing “takes over”.

Paragraph Rules

Paragraph rules, or *in-line rules*, are rules that move with the text as it is edited. Most publishing programs have an option for in-line rules, and some word processors even have options for in-line boxes. The usual options include the width, style, and color of the rule; some programs give the option of setting the rule to the width of the column or the length of the text it is attached to.

Advanced programs let the user adjust the height of the rule in relation to the subhead. Additional paragraph spacing is almost always a requirement when using in-line rules. Extra space opens up the type and allows the rule to have more impact.

This is a subhead set in 14 points

They are commonly written in this manner: 10/12, pronounced “ten

This is a subhead set in 14 points

They are commonly written in this manner: 10/12, pronounced “ten

This is a subhead set in 14 points

They are commonly written in this manner: 10/12, pronounced “ten

This is a subhead set in 14 points

They are commonly written in this manner: 10/12, pronounced “ten

Figure 30: Examples of paragraph rules set to column width and to line length. Each rule requires extra paragraph spacing above or below.

In-line rules can be used for reverse-type subheads or subheads with color rules, creating a striking contrast to the body text.

Examples:

This is a subhead in 14 points

They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points.

This is a subhead in 14 points

They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points.

Figure 31: Examples of reverse subheads.

Tabs

Tabs are one of the most difficult tools to master, but only because most people do not spend the time to learn to use them properly. The basic tab settings are:

- Left Align Tab
- Right Align Tab
- Center Align Tab
- Decimal Align Tab
- Comma Align Tab
- User-Defined Align Tab

The left, right, and center *tabs* align text elements on invisible guidelines and work similarly to paragraph alignment. Decimal and comma tabs are for aligning numbers. The user-defined tab will align on any character, such as a currency symbol or the “@” sign in e-mail addresses. All of the tabs can be used as leader tabs. Leader tabs are usually the dots that are used to “lead” the reader from one text entry to another, such as in a table of contents; however, the leaders can be different characters.

There are two simple rules when using tabs:

- 1) Always keep the paragraph alignment set to flush left,
- 2) Use as few tab settings as possible.

Except for FrameMaker, most programs set the default tabs at every 1/2 inch, so most people just keep hitting the tab key until the text is aligned. The correct way to set the text on a tab setting is to use the program’s tab ruler and place a single tab at the correct setting.

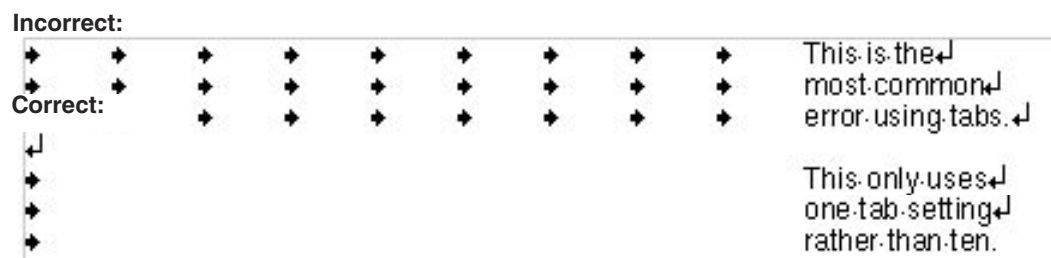


Figure 33: Set a single tab setting on the word processor’s ruler rather than entering multiple tabs.

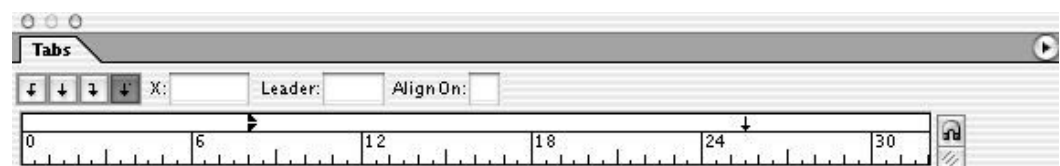


Figure 34: Typical tab ruler showing how single tabs are set.

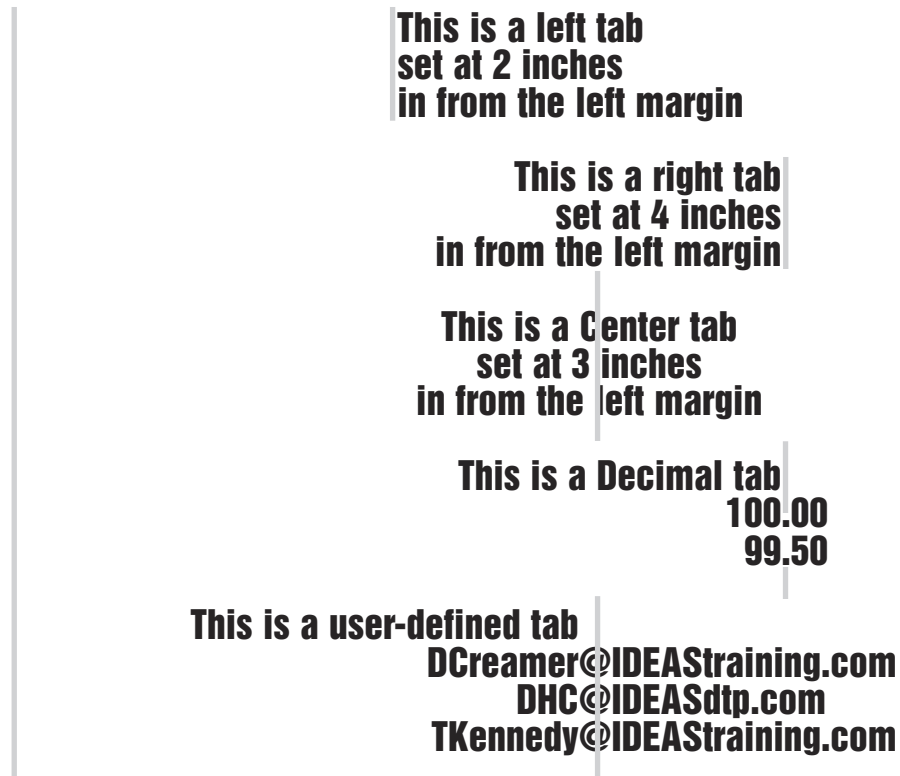


Figure 32A: Examples of basic tab settings. The rules have been added to show where the tabs are set.

Leader Tabs	120
Leader Tabs	20
Leader Tabs _____	99

Figure 32B: Examples of leader tabs with various characters set to a right-hand tab.

Paragraph Indents

The most common indent is the small indent at the beginning of each paragraph, but indents have many more uses, including adding an element of design to the page.

First-line paragraph indents only should be used if there is no paragraph space because the indents and the paragraph space exist to inform the reader when a paragraph stops and a new one begins. Using both the indent and paragraph space is overkill. The standard amount of indent is equal to the type size. For example, if the type size is 12 points, the indent should be 12 points. (Most programs allow the user to enter sizes in points if typed as “p12” or “12 pt”.) The amount of the first-line indent can be extended for design purposes.

Paragraph indent settings also include indents for the entire left and right side of the paragraph(s). Indenting on a single side is mostly used for design effect. For example, the left indent for the body copy in this report is set to 8 picas. Often, quotes are indented on both sides to stand out from the normal text.

STANDARD FIRST-LINE INDENT: 9 pt. type with 9 pt. (1 Em space) indent

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

FIRST-LINE INDENT: 9 pt. type with 1 inch indent

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

LEFT PARAGRAPH INDENT: 1/2 inch

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

RIGHT PARAGRAPH INDENT: 1 inch

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

LEFT AND RIGHT PARAGRAPH INDENT: 1/2 inch each side

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.” This indicates that the type size is ten points and the line spacing is 12 points, or has two extra points of space over the type size.

Figure 35: Examples of paragraph indents.

Typically, the first-line indent is measured from the left indent, so even if the left indent is set to one inch, the first-line indent would still read zero. First-line and left margin indents can be combined to create hanging indents or *outdents*. For example, by setting the left indent to 1/2 inch and the first-line indent to a *negative* 1/2 inch, your first line will extend out from the left margin of the paragraph.

Step 1: Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.”

Figure 37A: Example of an outdent.

Step 1: Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together. They are commonly written in this manner: 10/12, pronounced “ten over twelve.”

Figure 37B: Combined with a tab set at 1/2 inch.

- Paragraph formats include alignment, left indent, right indent, first-line indent, space above, and space below
- Character formats include font, font style, and type size.

Figure 37C: Using the same settings, a bullet list can be created.

Note: FrameMaker always measures the first line from the left column margin, not the left indent.

Widows and Orphans

Normally, a *widow* is a single line of text at the top of a page or column, separated from its paragraph, and an *orphan* is a single line of text at the bottom of a page or column, separated from its paragraph. By setting the paragraph to require that a minimum number of lines remain either at the beginning or the end of a paragraph, one can effectively solve this problem; however, this will create a “rag bottom,” or uneven bottom margins, in the document. Subheads often end up at the bottom of a page, while the text they belong with is at the top of the next page. This can be prevented by requiring the subhead to stay with the next paragraph.

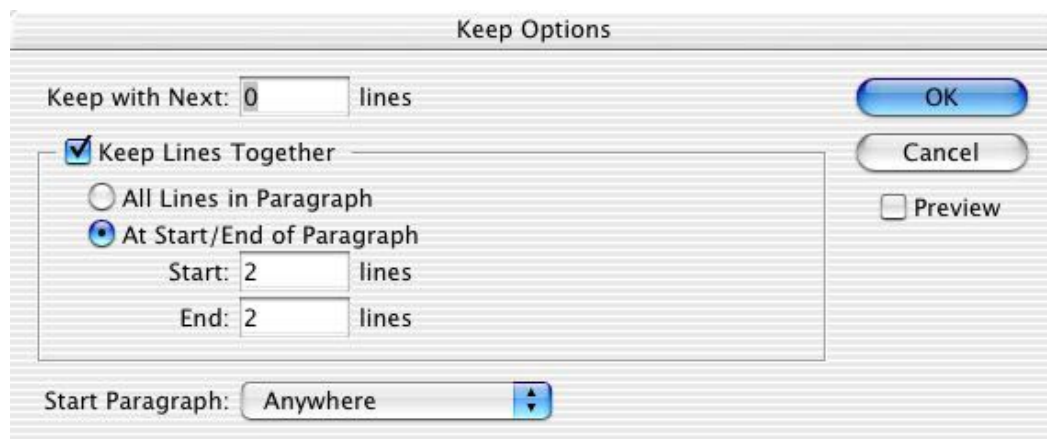


Figure 38: “Keep options” from InDesign.

Special Formatting

This section covers some of the common formatting errors that are simple to correct and can give a document a more professional look.

Hyphens and Dashes

Hyphens are usually used only to divide words or numbers, but they also are used to break words from one line to the next. Most programs have settings to automatically hyphenate words; although, occasionally, the user may need to manually hyphenate a word. Headlines and subheads should *never* be hyphenated. For words that are hyphenated but should not be broken at a line ending, a *non-breaking hyphen* should be used.

DISCRETIONARY HYPHENS

A hyphen should never be typed directly into a word if the program allows the use of discretionary hyphens, or “dishies.” *Dishies* are hyphens that disappear when they are not needed. If the text is edited after a regular hyphen is inserted, the hyphen will stay with the word and hyphenate the word in the middle of a line. By contrast, a dishie will not be visible when it is not at a line break; therefore, the word will appear normal in the middle of a line.

DASHES

Dashes come in two varieties: the en-dash and the em-dash. *En-dashes* are slightly longer than hyphens (usually, the width of the letter “N”), and are used to separate ranges of items, such as dates, quantities, and time. As a rule, if you can substitute the word “to” or “through” in place of the dash, then the dash is used correctly.

The *em-dash* is used in place of a comma to set off a section of the sentence that requires special emphasis. However, it does have other uses, such as preceding the attribution of a quote, so it is best to reference a style manual. Typically, em-dashes are the width of the letter “M” and should *never* be typed as two hyphens in a row. While hyphens should always be kept with the first portion of the word on the upper line and en-dashes should be kept unbroken with the items they separate, em-dashes can be kept with either the upper or lower line. Whether there is a space before and after the em-dash is a matter of style—either option is correct as long as the usage is consistent throughout the document.

Hyphens	En-Dashes	Em-Dashes
Mother-in-law	30–50 people	The em-dash—a very important typographic element—should not be overused.
800-555-1234	Oct. 10–15	

Figure 43: Examples of hyphens and dashes.

Line Breaks

Often, lines (particularly headlines and subheads) need to be broken for readability. However, just typing a return to break the line can alter formatting when paragraph spacing, rules, and indents are used. To avoid this problem, most programs allow line breaks; these are usually inserted by typing a shift-return, rather than a normal return. Using a shift-return also maintains the integrity of the paragraph. For example, if a subhead was set to *keep all lines together* and *keep with next paragraph*, the entire subhead will retain the settings. If standard returns are used, just the last line of the subhead will retain the correct settings.

With normal return:

This is a subhead

set in 14 points

They are commonly written in this manner: 10/12, pronounced “ten

With shift-return:

**This is a subhead
set in 14 points**

They are commonly written in this manner: 10/12, pronounced “ten

Figure 44: Examples of line breaks.

Drop Caps

Drop caps are used to start off new chapters and special sections of a report. You can create the cap, then alter the font, the style, and the color of the character through the use of a Character style. Many programs have settings to automatically create the drop caps; if the program does not have automatic settings, drop caps should be avoided.



Figure 45A: Drop cap settings from QuarkXPress and InDesign.

FrameMaker and PageMaker do not offer automatic drop caps.

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together.

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together.

Figure 45B: Examples of drop caps. The right example was formatted with a character style.

Raised Caps

Raised caps also are used to start off new chapters and special sections of a report. *Raised caps* are created by making the first character larger, while making sure the paragraph has enough space above it.

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together.

Because type size and line spacing are both measured in points and are inseparable, their sizes are normally written together.

Figure 46: Examples of raised caps. The right example was formatted with a character style.

Drop or raised caps should not be overused, otherwise their effect will be watered down.

Typographer Quotes and Inch Marks

One sure sign of an inexperienced typographer is the use of “desktop” quotes. These are straight slashes that are “holdovers” from typewriter fonts. Unfortunately, the slashes stand out because they usually do not match the font. Luckily, most programs have automatic settings to convert these slashes to quotes; if not, most computers allow the quotes to be typed manually. Quotes come in two varieties, and each has an open and closed version. Except for newspapers, double quotes are used for actual quotations. While it is better to use the Symbol font for inch and foot marks, if necessary, desktop quotes *can* be used for these marks.

Terminology:

‘ quote left
’ quote right
“ quote double-left
” quote double-right

Correct Usage:

‘Single Quotes’
“Double Quotes”
’80s (quote right)
CDs DVDs (no apostrophe)

Incorrect Usage:

It's '90s 90's CD's
"Bad Quotes" (typewriter quotes)

' quote single

" quote double

´ acute (Mac: shft-opt-e; Win: Alt-0168)

¨ hungarumlaut (Mac: shft-opt-g;

Win: Available through Character Map utility or Glyph palette)

Correct Usage:

12" equals 1' (using actual Prime symbols)

Acceptable Usage:

12" equals 1' (using acute and umlaut)

12" equals 1' (using standard italic slashes)

Incorrect Usage:

12" equals 1' (converted during import)

Figure 47: Examples of double and single quotes, plus inch and foot marks.

Spaces

Never double space after sentences and punctuation unless using mono-spaced fonts. Typographic fonts require only a single space after the period.

For words that have a space between them but should not be broken at a line ending, a *non-breaking space* should be used.

Other special-use spaces include: em-space, en-space, flush space, hair space, thin space, figure space, and punctuation space.

Text in Boxes (Sidebars)

In order to attract attention to small amounts of text, it is common to insert the text into a box. Whenever putting text into a box, there are some simple rules to follow:

- 1) Indent the text from the sides of the box,
- 2) Don't make the background tint or color too dark—unless the type is reversed, and
- 3) If using reverse type, try making the type bold and sans serif.

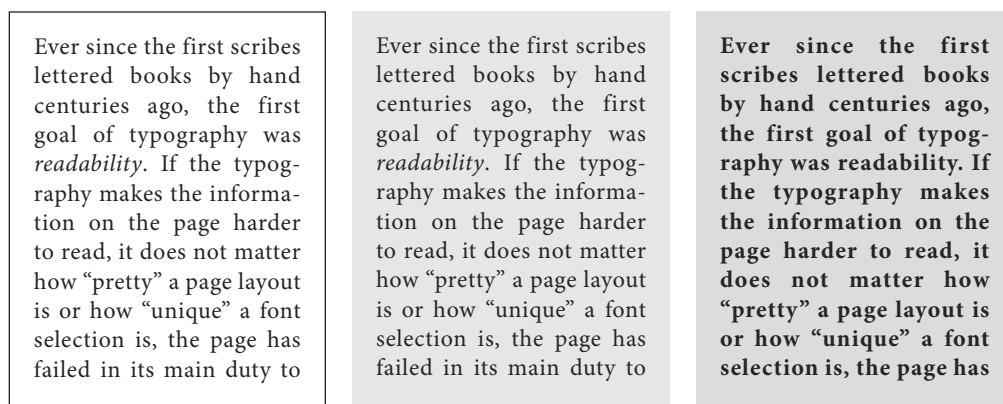


Figure 48: Don't make boxes too tight to the text. Keep tints lighter than 15% if using black type.

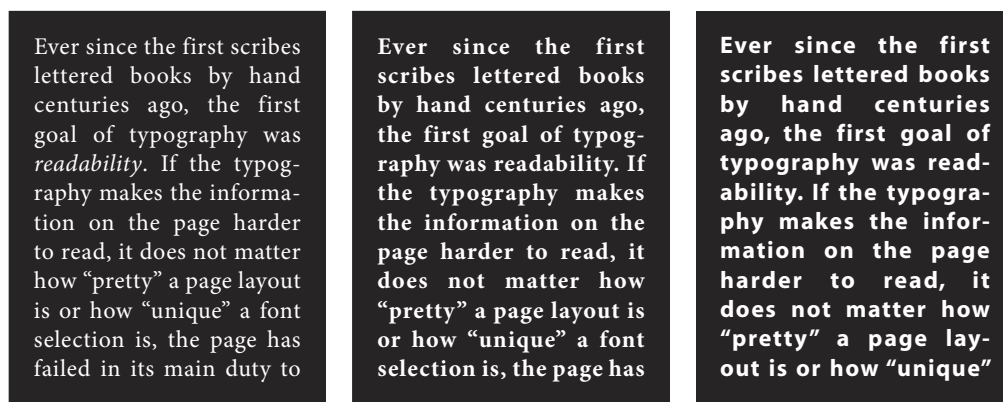


Figure 49: Make the text bold in black boxes—but don't use too much text.

Formatting Styles

With *styles*, also called style tags, the user can incorporate the type settings covered so far into a single format command. Styles have two major benefits:

- 1) They are a great time saver because they condense 5–30 different settings into one (eliminating the possibility of user error), and
- 2) A change to a style will affect the applied text throughout the entire document, making “global” edits much easier and quicker.

Types of Styles

PARAGRAPH STYLES

Styles generally come in two types: Paragraph and Character. *Paragraph styles*, as their name suggests, effect the entire paragraph, even if the entire paragraph is not selected. Paragraph styles will be the most common style used for general formatting.

CHARACTER STYLES

Character styles only effect text that is selected; this could be one character, one word, or multiple words. Popular uses would be when formatting a drop cap letter (the drop cap itself would be set through a paragraph style) and for highlighting product or company names. Depending on the program, character styles can be applied when formatting editorial usage of bold and italic.

Notes: PageMaker does not offer Character styles. QuarkXPress' Character styles require all format fields to be filled in; InDesign and FrameMaker offer “as is” settings for Character styles.

Based On and Next Style Usage

When creating a style sheet, the user should give the style a logical name, such as “Body-Master”. Any style can be *based on* an existing style, so only the differences need to be set. Also, this allows a *cascading* of styles. For example, if the “master” style font is changed, all the styles based on the master also will change to the new font (unless one of the derivative style changes *was* the font).

Another feature is the *Next Style* option; this changes the style automatically to the another style after typing a return. For example, body copy could be set to follow the subhead . This feature only works when typing text directly in the program.

Also, the option to give the style a *keyboard equivalent* applies the style with a single key stroke. However, many people find it easier to use the style palette(s) rather than remembering keyboard strokes.

Type Specification in Adobe Programs

One of the benefits of working with Adobe programs is the similarity of the interface. For example, below are the type palettes from Illustrator, Photoshop, and InDesign, with some of the settings indicated. Although they have differences, overall, the palettes are very similar. Although the InDesign palettes are shown, normally, one should use paragraph and character styles whenever possible. Currently, Illustrator and Photoshop do not support type styles

Illustrator

Photoshop

InDesign

Legend:

- A Font
- B Font Style
- C Type Size
- D Leading
- E Kerning
- F Tracking
- G Vertical Scale
- H Horizontal Scale
- I Baseline Shift
- J Type Skew
- K Paragraph Alignment
- L Left Indent
- M Right Indent
- N First Line Indent
- O Space Above Paragraph
- P Space Below Paragraph
- Q Hyphenation On/Off
- R Hyphenation Settings
- S Lock to Baseline
- T Drop Cap Settings
- U Language Setting

Conclusion

Although it may seem that the “rules” of typography are endless (and this report certainly does not cover *all* of the rules), the goal should be to present a readable finished product. It is not necessary to apply all the rules at once. The user should decide which rules are critical and then scan the work for mistakes. After time, formatting that seemed difficult will become second nature.

If you have any questions about the topics covered in this report or have suggestions for future versions/revisions, please e-mail me at DCCreamer@IDEASTraining.com.

About the author

An award-winning art director with over 20 years of publishing experience, David Creamer is president of I.D.E.A.S.. Launched in 1990, I.D.E.A.S. is a consulting, training, and design-services company — and one of the few training firms that actually has major editorial, design, and production experience.

As an authorized Adobe Training Provider and Certified Expert (for Photoshop, Illustrator, Acrobat, InDesign, PageMaker, FrameMaker and others), and an authorized QuarkXPress trainer (since 1988), Creamer has trained clients in electronic production software, workflow, and publishing methods, including implementation of procedures for computer-to-plate, composite PDF submission, and repurposing material for the web.

Training and consulting clients include Hewlett-Packard, Honda, Xerox, Honeywell, University of Alaska, Los Alamos National Labs, National Park Service, Salt Lake City Olympic Committee. Ziff Davis, Newsweek en Español, Florida Sportsman, Homes & Land of Naples, Health Science, and The Gourmet Retailer.

In addition, Creamer has written for numerous publications, including MacDesign, Desktop Publishers Journal, Computer News International, and Folio. He trains on both Macintosh & Windows platforms, and also troubleshoots hardware & software problems.

