CopyFit:

A CALCULATING GRID FOR PUBLISHERS

How much space is required for this article? How many words must I write to fill 4 pages? If we decreased the leading (line spacing) from 12 point to 11 point, how many inches will we gain?

Questions such as these are heard daily in most printing and publishing work areas. Experienced compositors are able to look at a manuscript and give an accurate estimate of the space needed. CopyFit is an Excel™ spreadsheet for the rest of us.   Please make a backup copy of CopyFit as your very first step. If you then delete formulas from a cell by accident you then have an original to begin again.

When you open CopyFit, you will note it is divided into three sections. This allows you to calculate three different layouts on the same sheet or experiment with three different sets of specifications for the same article.

At the top of each section, is a space to enter the **JOB**, **#CHARACTERS,** and **#LINES**. Next are four information areas: **Layout Specs, Typeface, Calculations**, and **Results**.

CopyFit is designed to do most of the work for you. Key information blocks interact after you enter the most basic data. This is why you will see many **#Div/0!** entries when you first activate your **CopyFit** grid.

The **LCA@6 len** (lowercase alphabet length at 6-point) value is a very important piece of information. Enter the **LCA@6 len** value (usually close to 80) and your grid is ready to calculate. You will find this information in most typeface specification books. On the second "page" of the **CopyFit** calculation grid you will find the **LCA@6** lengths for the most commonly used typefaces. A small portion of this table is shown at the top of the next page. This is a reference text area only, and you should edit or expand this list to include the typefaces you most often use.

CopyFit™

TYPEFACE LISTING: The key to copyfitting is to determine the length (in points) of the entire lower case alphabet in the 6-point size. From this key value all the calculations in the above grid are computed automatically. The values below are averages for the typeface from Linotype and Compugraphic typeface listings.

	LCA@6pt		LCA@6pt
Americana	88	Goudy Old Style	76
Americana Bold	94	Goudy Bold	77
American Typewriter Light	85	Grotesque	90
American Typewriter Med	94	Grotesque Bold	94
American Typewriter Bold	97	Helvetica Light	83
Antique Olive	94	Helvetica	78
Antique Olive Bold	94	Helvetica Medium	84

For new faces that might be introduced, you can easily determine the lower case alphabet length. Set an a-z lowercase string and measure the output in points. I find it easier to set the type in 24-point and divide the resulting length in points (72 to inch) by 4. There is nothing sacred about the 6-point size, it simply yields the lowest practical divider for easy use.

After you determine the typeface you wish to use and enter its **LCA@6** value, you will want to work in the **LAYOUT SPECS** area. Most publishers feel comfortable working in points and picas, so **CopyFit** is designed to use those values for input. The next example answers how many words or characters are needed to fill a particular layout.

CopyFit™

LAYOUT #1

Job:
June "DTP Casebook"

#Characters: [   ]   # Lines: [   ]

LAYOUT 1 CALCULATIONS

LAYOUT 1 SPECS: (picas)

20.50	Column Width (0.0)
54.00	Column Depth (0.0)
2	# of Columns per page
8	# of Pages ⬅
864.00	Total Column PICAS
144.00	Total Column INCHES

TYPEFACE:

Palatino

10	Size
12	Leading
82	LCA@6 len
137	Size Length

2.43	Char/Pica
49.85	Characters / line
108	Lines per page
5384	Characters/pg
864	Total Lines Available

RESULTS:

0	Total Line Yield
0.00	Total PICA Yield
0.00	Total INCH Yield

NEEDED TO FILL
Layout 1 Specifications above:

Characters:	Words:
43,071	7,831

PAGES NEEDED: [0.00]

The column width is 20.5 picas wide, and the depth is 54 picas. There are 2 columns per page and we wish to fill 8 pages. Specifying 10/12 Palatino (with a LCA@6 of 82) in the typeface section, you will see your answer in the **NEEDED TO FILL** area: 43,071 characters or approximately 7,800 words. If you routinely enter **"1"** in the **# of Pages** block you will always see the number of characters or words needed to fill one page.

A more conventional use will be when you know the number of characters or lines in the job and you wish to know how many pages are required to display this text. Again, start at the top.

Enter the number of **Characters** or **Lines**.

In the **LAYOUT** area, enter the **Column Width, Column Depth, #of Columns,** and **#of Pages.**

In **TYPEFACE:** enter the **SIZE, LEADING,** and **LCA**. The typeface name does not affect the calculations; it is for reference only.

For this project the 26,865 characters in our 2-column layout on an 8.5 x 11" sheet will need just under 5 pages. As you change the typeface specs from size to size or adjust the leading you will immediately see the resulting gain or loss in pages required. The **CALCULATIONS** area will supply you with other data; how many characters will fit in an average line, how many characters to a page and how many lines in the total project.

Characters are the most often used value for copyfitting, but in directory work each entry must occupy a line no matter how few characters it contains. This is why the **number of lines** value is important at times.

How do you determine how many characters or lines are in a file? Many excellent **Word Count** desk accessories are available as shareware or in the public domain. Also, more and more word processing programs can indicate that information.

In the section of the grid entitled **LAYOUT #3** *(shown at the top of the next page)* I have added an entry area where you can indicate column inches of art or photos. This also works in two ways; if you know the number of pages you plan to use, it can take your current character count and indicate how much space is available for art and photos, or you can enter the needed column inches for your optimin layout specifications in the results area and you will see what space you have to spare or need to gain.

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GRID FOR TYPE + ART AND PHOTOS   **LAYOUT #3**

Job:
"Deavers vs Bridgewater" article   #Characters: **31,569**   #Lines: [   ]

LAYOUT 3 CALCULATIONS:

LAYOUT 3 SPECS. (picas)	TYPEFACE.	LAYOUT 3 CALCULATIONS
13.50 Column Width (0.0)	Caledonia	2.52 Char/Pica
54.00 Column Depth (0.0)		34.07 Characters / line
3 # of Columns per page	10 Size	162 Lines per page
1 # of Pages	12 Leading	5520 Characters/pg
		162 Total Lines Available
162.00 Total Column PICAS	79 LCA@6 len	**RESULTS:**
		926 Total Line Yield
27.00 Total Column INCHES	132 Size Length	926.46 Total Type PICA Yield
		154.41 Type INCH Yield

➡ **Add inches needed for art or photos here =** | 26.75 +Art/Photos Inches
181.16 Total INCH Yield

NEEDED TO FILL   Characters: Words: **PAGES NEEDED:** [6.71]
Layout 3 Specifications above: 5,520   1,004   Inches Available for Art: [-154.16]

A Review of CopyFit Operations:

To determine how many characters or words are **needed to fill**:
1. Enter **Column Width, Column Depth, # of Columns**, and **# Pages**.
2. Enter **Typeface, Size, Leading** and correct **LCA@6** value.
3. You will see the results in the **Needed To Fill** boxes.

To determine **how much space is required** for created text:
1. Use a desk accessory word count program to determine the number of characters, words, and lines in your file.
2. Enter **Column Width, Column Depth, # of Columns.**
3. Enter **Typeface, Size, Leading** and correct **LCA@6** value.
4. In the **Calculations & Results** area you will note the length required and pages needed.
5. Vary the type size and leading to bring the results into balance with the   space available. Every change will create a new result.

Basic Typesetting Terms:
Vertical space is divided into **points**.   72 points = 1 inch   Horizontal measure is divided into units called **picas**.   6 picas = 1 inch

CopyFit Calculation Grid Information   -
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Type **size** is the height of the letter form from the highest ascender to the lowest descender. **Leading** or **linespacing** is the depth of space occupied by a line. A designation of 10/12 would indicate that a line of type 10 points high is placed on a line 12 points deep, creating an extra 2-point band of white space between each line. Extra white space between lines increases readability.

CopyFit was developed by John A. Lutz, Quechee, VT 05059-0647. This grid is in the public domain.   Enjoy! I welcome your suggestions for improvements.   CompuServe: 76324,3301.