LaserDirect
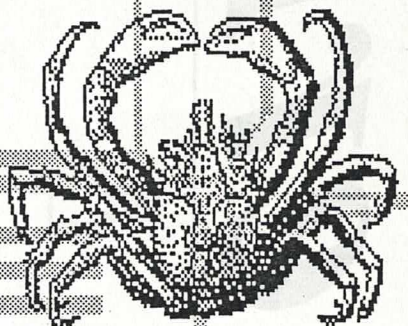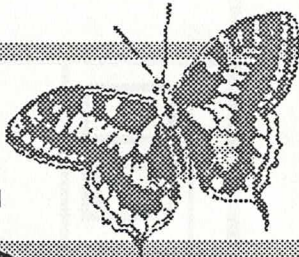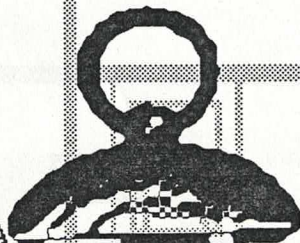
THE LASER PRINTING CENTER

A desktop publishers' reference guide for use with GEOS

Publishers' Kit

Quality   Service   Support

You get More from LaserDirect!

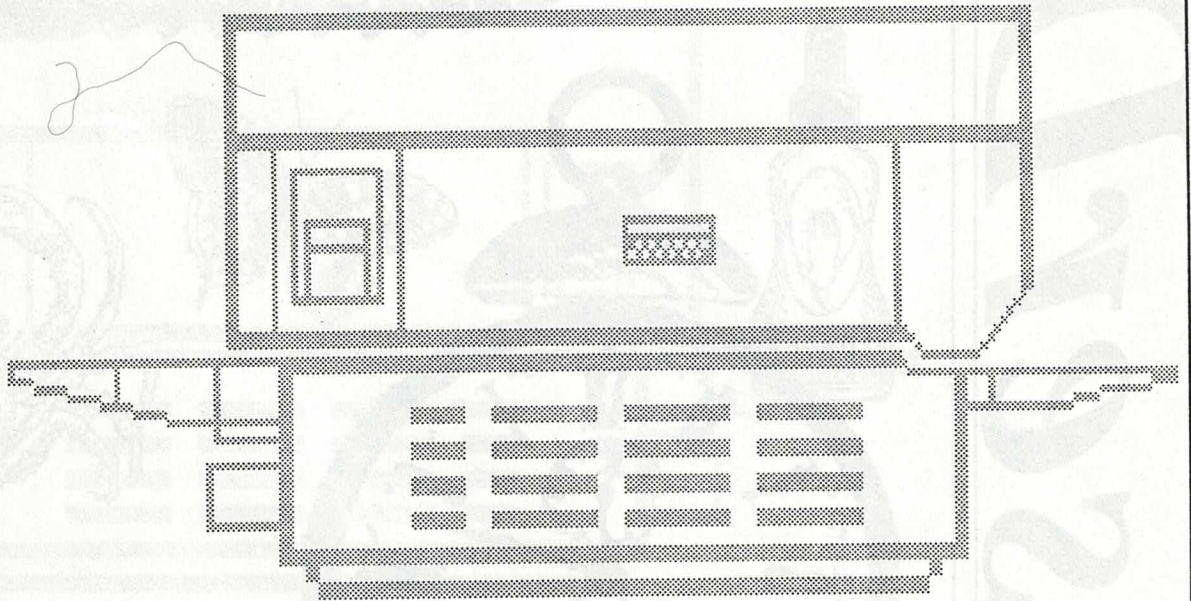# *LaserDirect*

THE LASER PRINTING CENTER

Table of Contents

Due to the continually evolving nature of the GEOS system, pricing & certain services may be expanded, revised or deleted without prior &/or written notification.

Publishers' Kit

So, you want to become more proficient at desktop publishing?

If there is any secret to becoming an "expert" at electronic publishing it is one easily overlooked point. Most of us have neither the time, nor the inclination for it, but it is p - r - a - c - t - i - c - e. There is, as with most things, a learning curve. The only way to overcome a learning curve is to practice.

This Publishers' Kit was designed to help you reduce, if not eliminate, the learning curve of creating laser printed geoPublish documents.

This manual is a 'kit'. It presumes that you have already used geoPublish to some degree. It also presumes that you have read the manual that accompanies the software. This kit is a collection of how-to's. While it teaches and guides, it is not intended to be a step by step instruction manual. Much of what is illustrated and exemplified is a reaction to the most challenging and most frequently asked topics regarding geoPublish laser printed output. As such, many of the topics may seem foreign until you have a need to use them.

A closing word before we continue. If you have a question - call us. If you have a suggestion - let us know. LaserDirect is here to be your desktop publishing resource center.

Differences between geoPublish dot-matrix printing & geoPubLaser printed documents

If you print a document to your dot-matrix printer, using geoPublish only, the document will print exactly as it appears on the screen. If you submit your geoPublish document to LaserDirect for laser printing on the Apple LaserWriter Plus, (using the geoPubLaser program), there may be a few differences in the document's final appearance.

Transparent/Opaque option

The LaserWriter does not support the transparent option; it prints all objects opaque. To minimize the effect of this problem on the printing of documents, geoPubLaser prints objects in a different order.

☞ geoPublish to a dot-matrix printer, prints in this order:

1) Master Page objects (in priority order).
2) Page Layout regions (in priority order).
3) Page Graphics objects (in priority order).

☞ geoPubLaser prints in the following order:

1) Master Page transparent objects (in priority order).
2) Page Graphics transparent objects (in priority order).
3) Master Page opaque objects (in priority order).
4) Page Layout regions (in priority order).
5) Page Graphics opaque objects (in priority order).

What this means is, if you select a Master Page layout from the Library, and it contains vertical divider lines for the columns - your laser printed document will come out with the verticals running the full 11" length of your page - even though you may have placed a text region over them and they didn't appear on the screen. (They appeared to be hidden, or covered up.) Remember: The LaserWriter prints everything in your document as opaque, thus, if some objects are placed over one another unintentionally, they will print over each other.

Brush shape option

The LaserWriter does not support "brush shapes", but has "line cap types" instead. This causes the end points of objects with large brushes to appear slightly different.

Pattern option

The LaserWriter with geoPublish does not support patterns, only levels of gray. Thus most of the GEOS patterns are not supported and are mapped to 50% (halfway between white and gray). The GEOS 25-50-75%, and a few others are mapped to gray levels on the LaserWriter.

For an illustrated example comparing the "patterns" with their laser printed gray-level output, see pages 11 & 12.

Non-resident fonts

geoPubLaser prints text created with non-resident fonts (fonts not resident within the LaserWriter Plus) by sending the laser a pixel-by-pixel picture of each character. Since GEOS's resolution is 80 dpi, non-resident fonts appear jagged and broken when compared to resident fonts. Non-resident fonts can also take considerably longer to print than resident fonts. (See Print Overtime Surcharges later in this kit.) A more pleasing appearance may be achieved by selecting the "smoothed" option from the attributes dialogue box. The LaserWriter and the computer will automatically smooth-out the jagged pixels of the non-resident fonts. While

this option produces a 300 dpi character, it does not produce a character that is Near-Typeset Quality as the resident fonts produce.

Some fonts not working with geoPublish

Fonts that do not support both upper and lower case text, will not work within the geoPublish environment.

Printing options

While most customers of the LaserDirect laser printing service will want a normal 100% printout of their document, you should be aware of some of the unique options available from the geoPubLaser program.

From Page to Page: Allows just part of a document to be printed.

Copies: Allows multiple copies of a documrent.

Smoothing: Controls the amount of smoothing to be done on bitmaps or special text regions (non-resident fonts) which you designated to be smoothed from within the geoPublish document. This option is normally set at 300 dpi. Available options are: 75, 150, 300 or none. Selecting "none" will turn off the smoothing affect. 300 dpi smoothing takes about four times longer than 150 dpi smoothing, and about 16 times longer than 75 dpi smoothing. (Note: Print Overtime Surcharges take effect on files taking longer than 15 minutes to print.) Of course, 300 dpi smoothing (our default smooth level), produces the best results.

Thumbnails: Prints a reduced version of every single page of the document onto one page. The pages are reduced to 22% of their original size to make all the pages fit onto one page. This option is very handy when you want an inexpensive way to proof your entire geoPublish document. Thumbnails are available for $1.50 each, plus postage & handling.

Reduce/Enlarge: Allows reduction or enlargement of your documents. Values less

than 100% reduce to that percent of the normal. Enlarging causes several sheets of paper to be printed for each original page of the document. For example: Enlarging one page to 200% causes four pages to be printed. Each enlarged page has tiny crop marks in the corners indicating where the page needs to allow the pages to be spliced together.

Master page & page layout libraries . . .

If you use the "Master Page" and "Page Layout" libraries, and you want your geoPublish document to utilize the full printing area of the LaserWriter, you will need to use the 80 dpi Master Page & Page Layout libraries. While documents created using the 60 & 72 dpi libraries will print from the LaserWriter, they will be noticeably narrow in their appearance.

While this is an inconvenience for proofing purposes, it is the only way to get a full LaserWriter image area printed. One option is to order a thumbnail and proof your documents from it; another option is to purchase an 80 dpi dot-matrix printer; or lastly, compose your 'Pub document for your particular printer (for proofing purposes) and then cut & paste the finished laser output into position.

If you proof your document carefully from your 60 or 72 dpi dot-matrix printer, the worst that will happen is that the right edge of your copy will be cut-off.

If you do not use the libraries, but rather, use the entire page region "free-hand", your document will utilize the entire print area available to the LaserWriter.

Network/modem uploading

The procedure for uploading geoPublish files for laser printing is basically the same as that for geoWrite and geoPaint files. What you should be aware of is that geoPublish files require that all of the

related text documents used to create your 'Publish document must also be uploaded along with that actual 'Publish document itself.

Files to upload:

In order for LaserDirect to properly laser print your geoPublish file, a minimum of 2 files must be uploaded to us. Note that *each* geoPublish file to be laser printed must have an accompanying text file if you imported a geoWrite file via the Page Layout Mode.

Upload your main geoPublish document.

Upload all of the related geoWrite text files used to create your main geoPublish document.

When converting these GEOS files to a SEQuential format for uploading, use the "application data" option.

Text file names & converting:

It is <u>very</u> important that you let us know in your "info" page what the original names of the related geoWrite text files were called <u>before</u> you converted them.
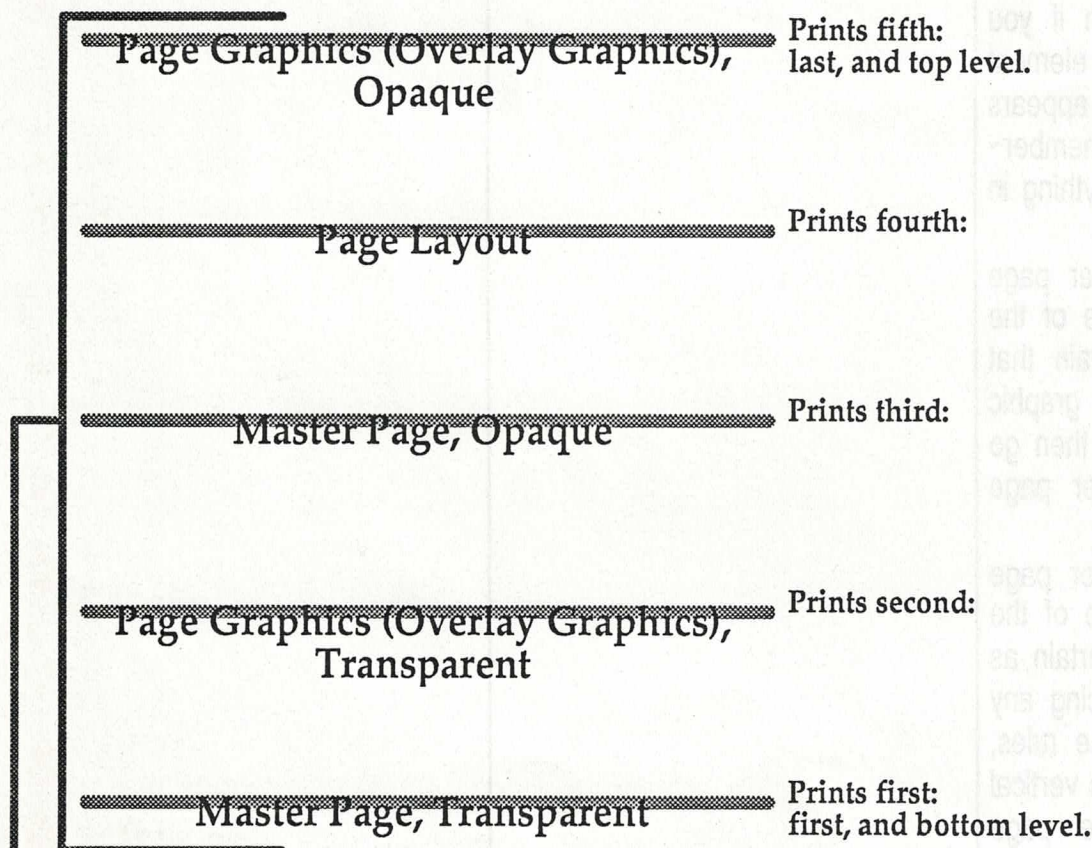
Example:

✍ You created a geoWrite document called Picnic.

✍ You imported this geoWrite file into your 'Publish document by way of the Page Layout Mode; import text option. As soon as you clicked onto a text region to place this geoWrite file, 'Publish permanently remembered the file name Picnic. (e.g. Upper <u>&</u> lower case)

✍ To convert this geoWrite text file for uploading, you renamed it all to Upper case characters; PICNIC.

✍ We convert this file and it appears with a file name still in Upper case.

✍ We then print your main geoPublish document. The 'Pub doc cannot find the text file Picnic that it needs - it can only find a file named PICNIC. The text within the Picnic file <u>will not be printed</u> unless you tell us that the file uploaded as PICNIC needs to be renamed to Picnic.

It's a good idea to et into the practice of naming all of your text files in UPPER CASE as you create them for your 'Pub document. It will avoid this complication for you and for us!

Publishers' Kit

LaserWriter printing order

The LaserWriter will print the various elements of your document in its own "priority order". So that you obtain the laser output that you intended, please review, and use, the priority printing chart as illustrated below.

Envision the five gray lines below as the five layers making-up your geoPublish page. All of these layers are printed one on top of the other.

Suppose that you want a border placed around some text. Your text is on the Page Layout "layer". If you place the border from the Master page (Transparent or Opaque), the border will appear on all of your following pages. If you place the border from the Page Graphics mode, select the attributes tool and make sure that the border is specified as opaque and <u>not</u> transparent. If the border is left as opaque, (it prints last in the priority order of the LaserWriter), it will cover-up your text. If the border is specified as transparent, it will be printed before the text; the text from the Page Layout mode will be printed <u>on top of</u> the border element.

Page Graphics (Overlay Graphics),
Opaque
> Prints fifth:
> last, and top level.

Page Layout
> Prints fourth:

Master Page, Opaque
> Prints third:

Page Graphics (Overlay Graphics),
Transparent
> Prints second:

Master Page, Transparent
> Prints first:
> first, and bottom level.

Five layers combine onto one page to create a finished geoPublish document.

Master page mode

The Master page Mode is where you set-up text and/or graphic elements that you want to appear on each and every page of your geoPublish document.

Yu have the option of creating a single master page, or a left and right page.

☞ Anything that you place on a master page <u>will print on each and every following page.</u> Even if you "cover-up" a master page element from another mode, and it appears as though it will not print, remember~ the laser printer prints everything in your document.

☞ If you choose a master page with vertical rules from one of the libraries, and you are certain that you will not be placing any graphic elements over these rules, then go ahead and use the master page template from the library.

☞ If you choose a master page with vertical rules from one of the libraries, and you are un-certain as to whether you will be placing any graphic elements over these rules, then it is wise to place each vertical rule as needed from the page graphics mode.

Publishers' Kit

Page layout mode

Page Layout Mode is where you add your "body copy" to your geoPublish document. It is the method by which you "import" geoWrite text files into your document.

Text regions

In order to have an area that you can import your geoWrite text files into your 'Publish document, you must first create a text region. Refer to your geoPublish manual.

☛ Make sure that you <u>DO NOT</u> overlap text regions unintentionally. If you do, there is a very good chance that two or more blocks of text will print over one another making the resulting printout unuseable.

☛ <u>DO NOT</u> assume that if a text region covers a graphic or line from the Master Page, that it is hidden, and will not print. If you cover a column divider (a line) or any graphic or text from the Master Page, with a Page Layout Text Region, even though it does not appear as showing on your screen, it will print through your text. *Refer to the Master Page section regarding how the LaserWriter handles Transparent & Opaque options.*

☛ geoWrite margin settings will over-ride guter settings. If you know ahead that you will be creating a narrow column of text for your 'Publish document, do not set the margins to a narrow setting from within geoWrite. Leave the margins full page. If you move your right margin in too far to the left, it will over-ride the right margin being established by your text region. Let 'Publish do the work for you.

☛ Text region gutter settings will over-ride text region placement settings. If you plan on creating a 3-column newsletter, complete with divider lines (rules), you may be concerned that your text may flow into these lines. You may choose to set your text region 3 to 5 72nds &/or 80ths away from the lines to insure that your text doesn't run into these lines. Don't forget that your gutter settings are automatically pre-set for you to 5. This may give you a bit more white space between your lines and your text than you want. If so, simply open the gutter settings and reset appropriately.

If you choose to place your text region directly on the line (this is our method at LaserDirect), you can let the gutter settings, preset at 5, manage the white space between the text and the lines for you.

☛ The same rules of page creation and appearance that apply to geoWrite, apply to your text files within the Page Layout mode.

<u>DO NOT</u> use spaces to position or align your text on the screen.

<u>DO</u> use the center or left/right justification buttons to correctly position your text.

<u>DO</u> use tabs and/or moveable margins to "lock" your text into position.

<u>DO</u> feel free to use the page break option to stop the flow of text from region to region. (In this way you can reduce the number of text files that you use, and still maintain easy control over the autoflow of your text.)
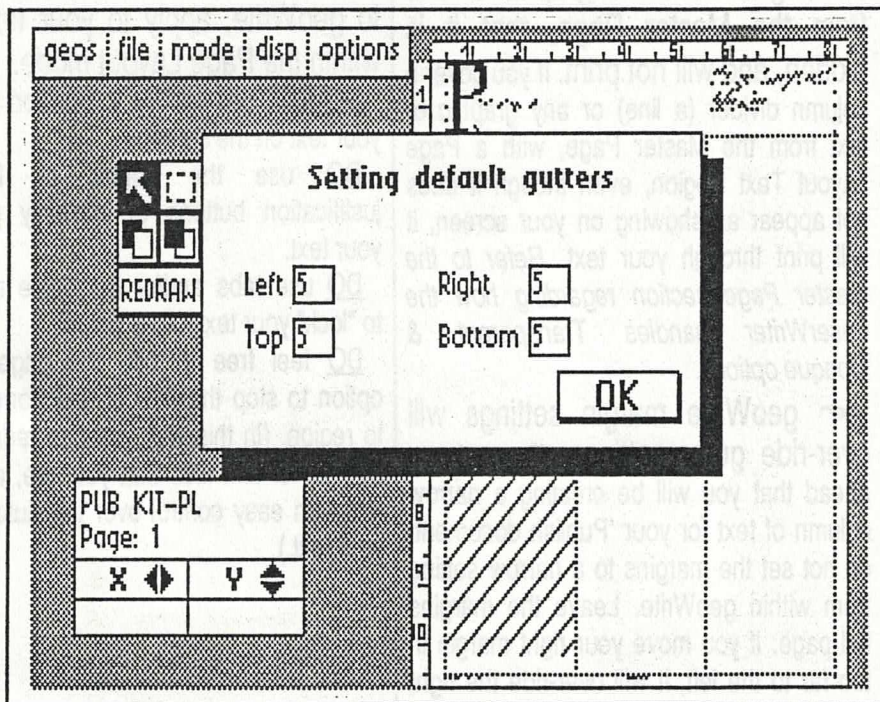
Select "Set Gutters" from the "Options" Pull-down menu. Setting gutters sets the amount of white space between the outer edge of your text region and the edge of your text.
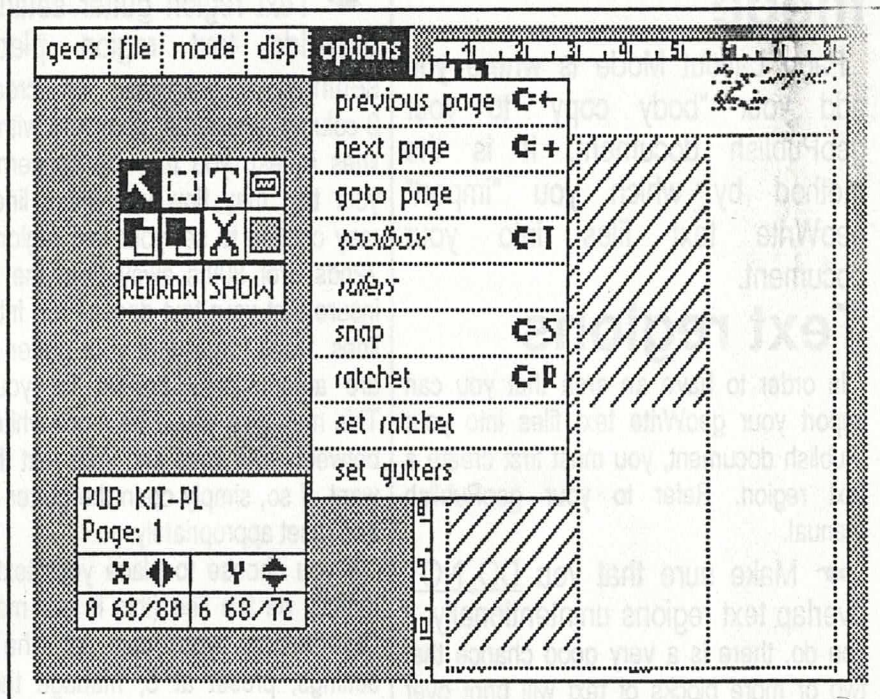
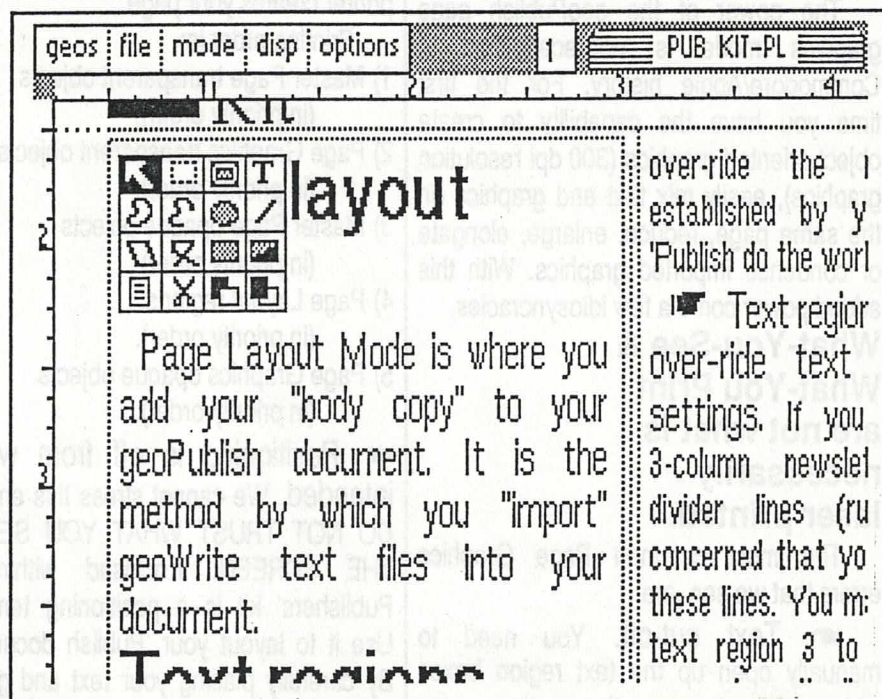Set gutter measurements for each text region, one at a time.

Selectable from 0, (no white space), to 70.

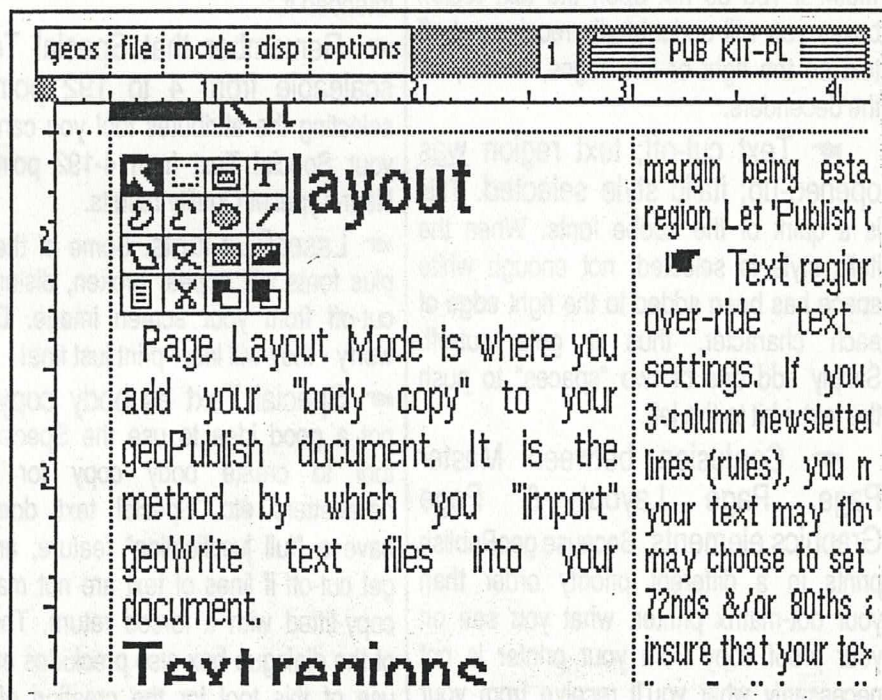Make sure that you press return to set your new gutter setting before clicking ok.

Text region is inset from the dividing lines.

Gutters add an additional amount of white space between text and text region area.

> geos | file | mode | disp | options　　　1　　PUB KIT-PL
>
> [toolbox icons] **layout**
>
> Page Layout Mode is where you add your "body copy" to your geoPublish document. It is the method by which you "import" geoWrite text files into your document.
>
> **Text regions**

> over-ride the
> established by y
> 'Publish do the worl
>
> ☞ Text region
> over-ride text
> settings. If you
> 3-column newslet
> divider lines (ru
> concerned that yo
> these lines. You m:
> text region 3 to

Text region is placed ON the dividing lines.

Gutters add a bit of white space to prevent text from flowing into the lines.

> geos | file | mode | disp | options　　　1　　PUB KIT-PL
>
> [toolbox icons] **layout**
>
> Page Layout Mode is where you add your "body copy" to your geoPublish document. It is the method by which you "import" geoWrite text files into your document.
>
> **Text regions**

> margin being esta
> region. Let 'Publish
>
> ☞ Text region
> over-ride text
> settings. If you
> 3-column newsletter
> lines (rules), you n
> your text may flo
> may choose to set
> 72nds &/or 80ths
> insure that your te

Page Graphics

The power of the geoPublish page graphics mode is unprecedented in Commodore/Apple history. For the first time you have the capability to create object oriented graphics (300 dpi resolution graphics), easily mix text and graphics on the same page, reduce, enlarge, elongate or condense imported graphics. With this added power come a few idiosyncracies.

What-You-See & What-You Print are not what is necessarily laser printed.

The most common Page Graphics errors that we see .are:

☞ **Text cut-off.** You need to manually open up the text region boxes wider & deeper than they are automatically set by 'Publish. This is due to the fact that the laser fonts need a bit more room to "expand" their character width. If you do not open the text region boxes you will undoubtedly receive cut-off text on the right or left edges, and/or, on the decenders.

☞ **Text cut-off; text region** <u>was</u> **opened-up; italic style selected.** This is a quirk of the adobe fonts. When the italic style is selected, not enough white space has been added to the right edge of each character, thus it gets cut-off. Simply add one or two "spaces" to push the text a bit to the left.

☞ **Confusion between Master Page, Page Layout & Page Graphics elements.** Because geoPublish prints in a different priority order than your dot-matrix printer, what you see on your proof copy from your printer is not necessarily what you'll receive from your laser printout. You need to get in the habit of thinking in terms of how the laser printer creates your page.

Printing order is:

1) Master Page transparent objects
    (in priority order).
2) Page Graphics transparent objects
    (in priority order).
3) Master Page opaque objects
    (in priority order).
4) Page Layout regions
    (in priority order).
5) Page Graphics opaque objects
    (in priority order).

☞ **Positioning is off from what I intended.** We cannot stress this enough:. DO NOT TRUST WHAT YOU SEE ON THE SCREEN. Enclosed within this Publishers' kit is a positioning template. Use it to layout your 'Publish documents. By carefully placing your text and graphic regions at precise X & Y coordinates, rather than simply placing elements on the page, you will help to ensure that your document is printed in the way you intended it.

☞ **Remember that Special Text** <u>is</u> **scaleable from 4 to 192 point.** By selecting the attributes tool you can scale your Special Text from 4-192 point <u>with</u> Near-Typeset Quality results.

☞ **Laser***Plus* **fonts.** Some of the laser plus fonts will appear broken, distorted or cut-off from your screen image. Do not worry - they will laser print just fine!

☞ **Special Text as body copy.** It is not a good idea to use the Special Text tool to create body copy for flyers, newsletters etc. Special text does not have a "full justification" feature, and will get cut-off if lines of text are not manually copy-fitted with a forced return. The size of the dialogue box also precludes efficient use of this tool for the creation of body copy.

You are farther ahead if you create your body copy as a geoWrite file and import it into your 'Publish document via the Page Layout Mode. You will be much happier with the results!

True centering of page graphics text

The most common mistake is to try and center the text on the page visually; usually leaving the justification on "left."
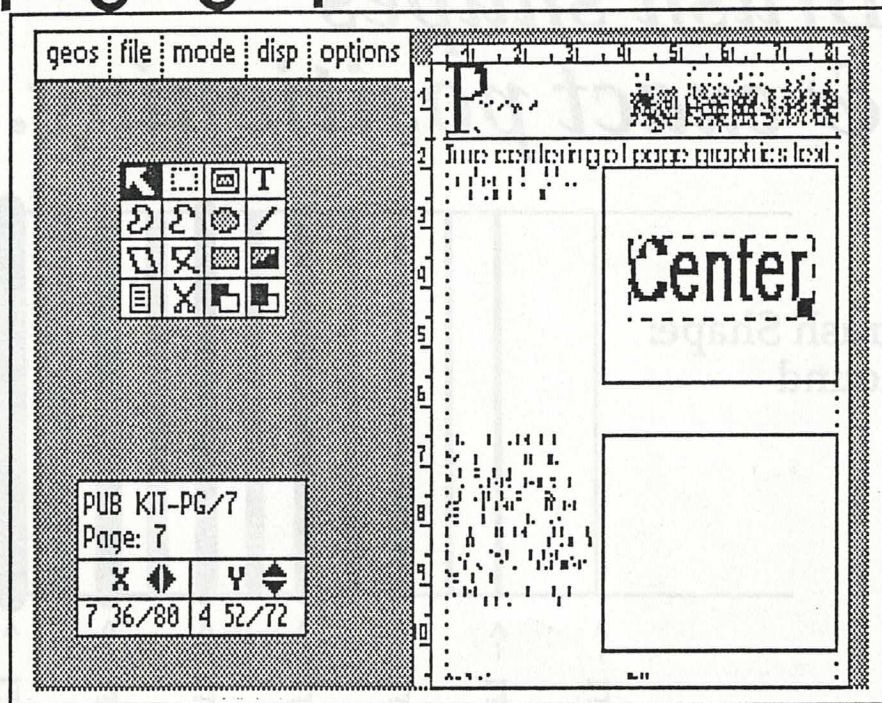
Text region centered on page "by eye", with left justification. —>   Center

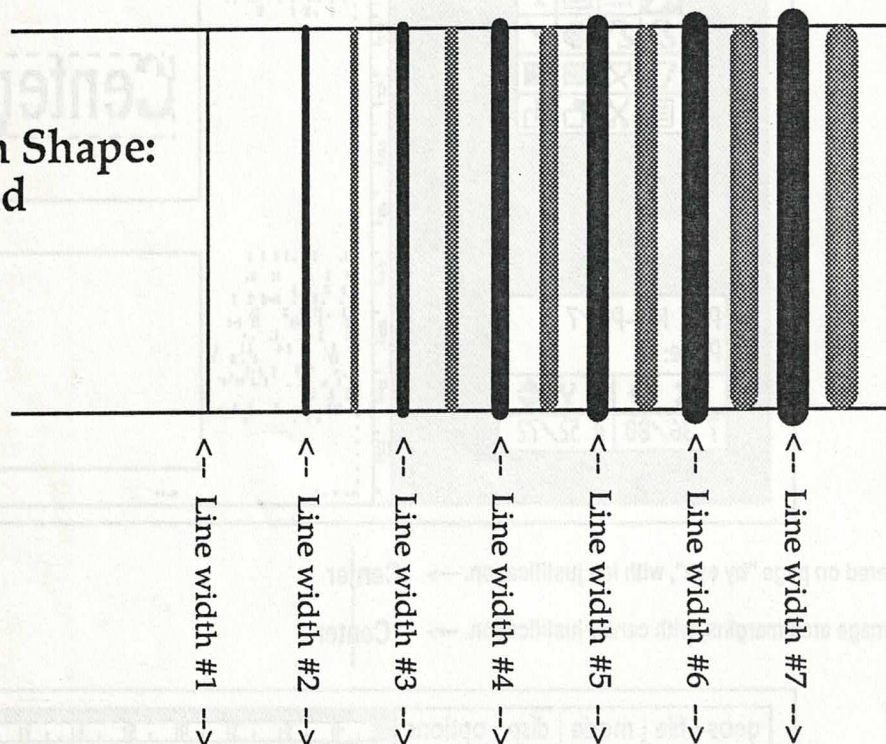Text region set at left and right image area margins, with center justification. —>   Center

To truely center your text within the image area:

1) Place the crosshair at the left base position. Click to set.

2) Type your text. Select Attr. Select "center" justification. Click on OK.

3) Click on the text to highlight the text region.

4) Click on the lower right black box. Move the right edge of the text region to the right edge of the image area. Move the bottom of the box down 1/8" to give the text enough room to expand. (To prevent cut-off text.)

5) Click to set. Your text will now be centered within the image area.

Publishers' Kit
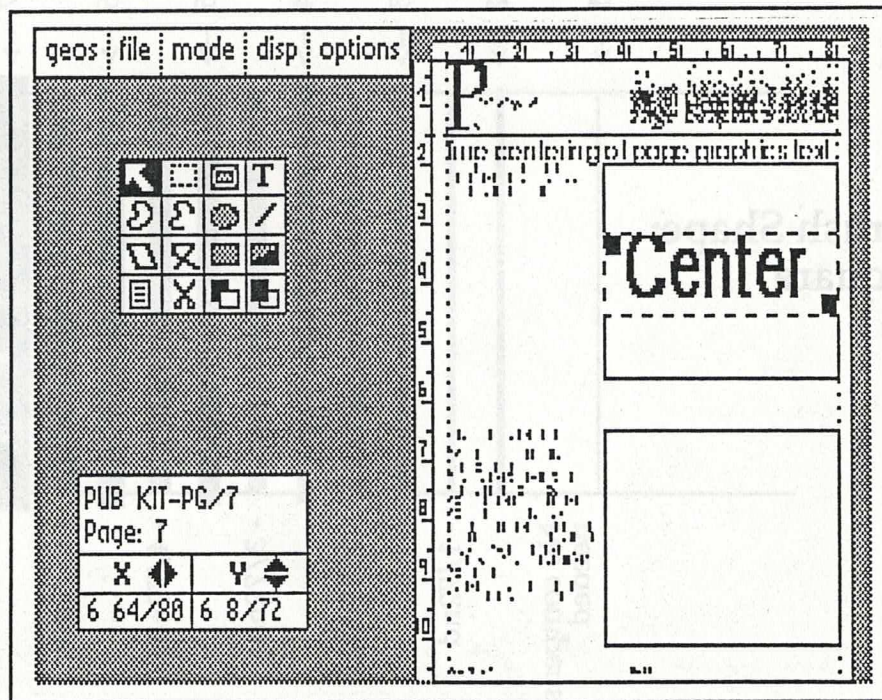
Brush shapes & exact positioning.

**Brush Shape:
Round**

<-- Line width #1 -->
<-- Line width #2 -->
<-- Line width #3 -->
<-- Line width #4 -->
<-- Line width #5 -->
<-- Line width #6 -->
<-- Line width #7 -->

**Brush Shape:
Square**

No compensation needed
- 1/72nd
- 2/72nds
- 3/72nds
- 4/72nds
- 5/72nds
- 6/72nds
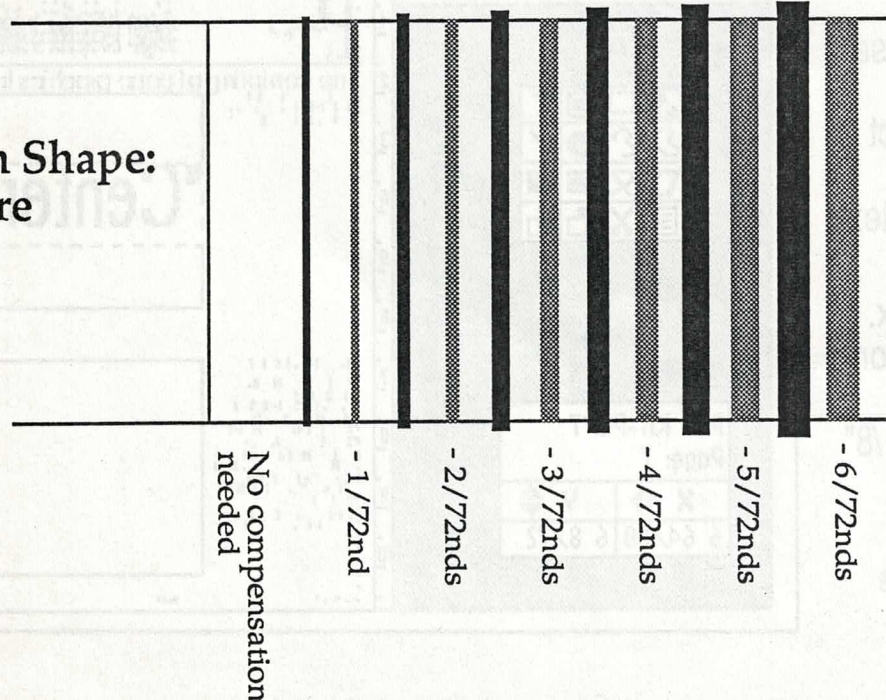
When placing vertical or horizontal rules at snap points, you may think that they are going to be placed exactly where you want them. (e.g. Up against a border.) The wider your rule becomes, the farther it will over-extend its intended ending point. To visualize this example, look at the black rules as they were placed on the snap points. Now, look at the shaded rules as they were compensated for their line cap ends. (they are butted up against the snap points.)

To compensate correctly for this line cap discrepency;

1) Decide which line width you will be using.

2) Place your crosshair at the beginning snap point.

3) Now compensate the appropriate number of 72nds or 80ths to place at the correct location. (Compensate down for vertical rules, to the right for horizontal rules.)

4) Don't forget that you will also have to adjust the "trailing edge" point by the same number of 72nds or 80ths after you set your rule.

The "Trailing edge" is either the right end of the rule for horizontals, or the bottom end for vertical rules.

<-- Snap Line

<-- Compensation amount

geoPaint
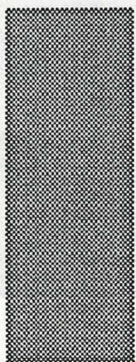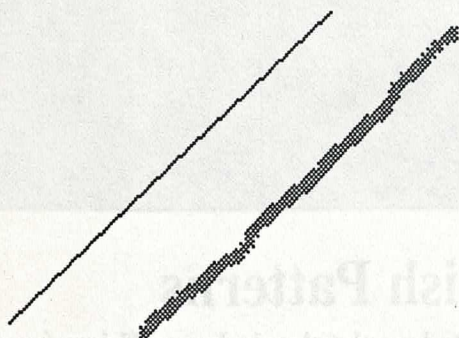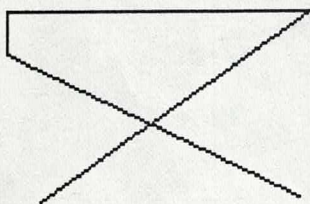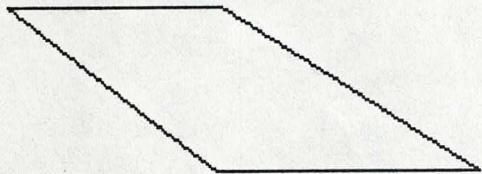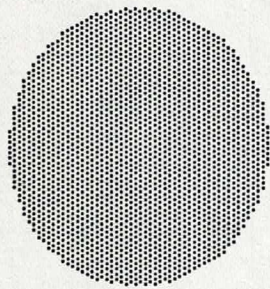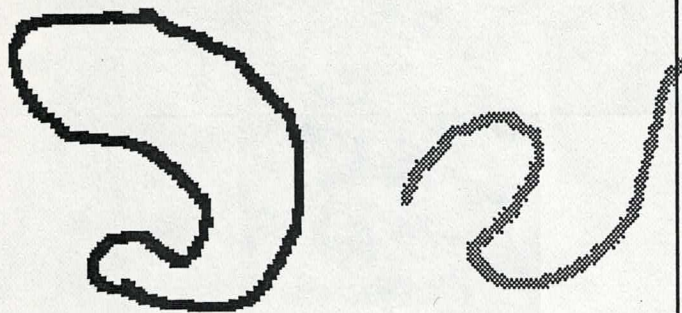
geoPublish
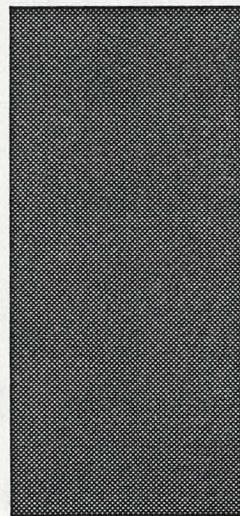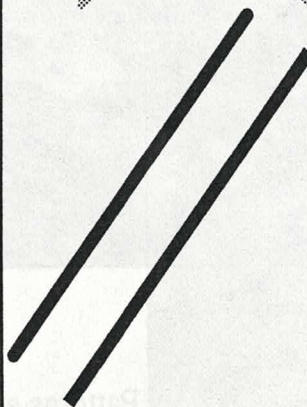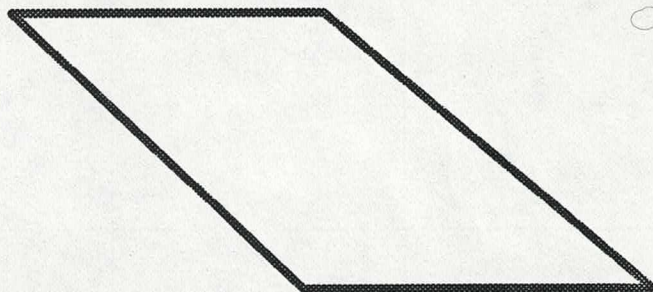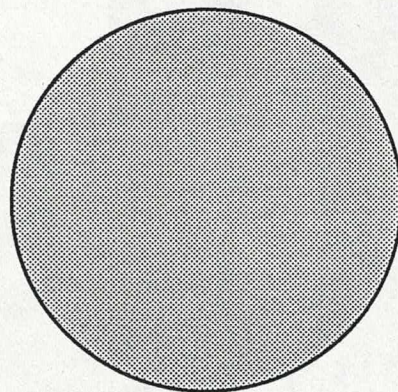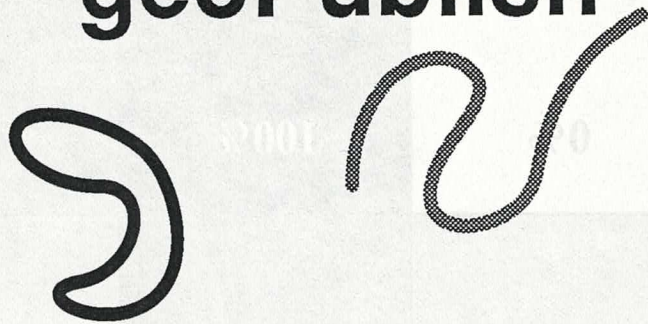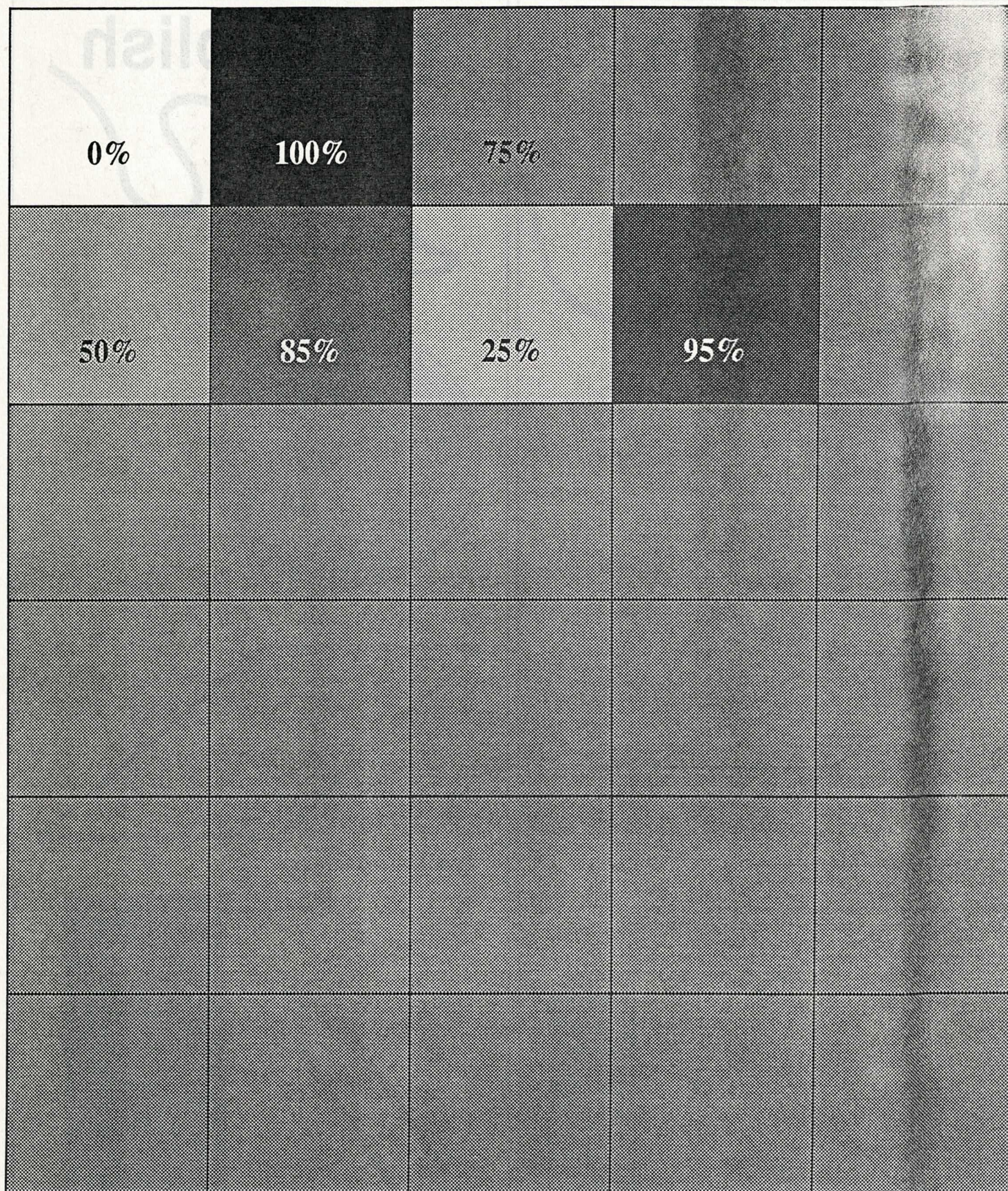
0%	100%	75%	
50%	85%	25%	95%

geoPublish Patterns

Patterns as they appear printed on the Apple LaserWriter (gray scale); & as they appear on the Panasonic KX-P1091.

geoPublish Patterns

Patterns as they appear printed on the Apple LaserWriter (gray scale); & as they appear on the Panasonic KX-P1091.

13
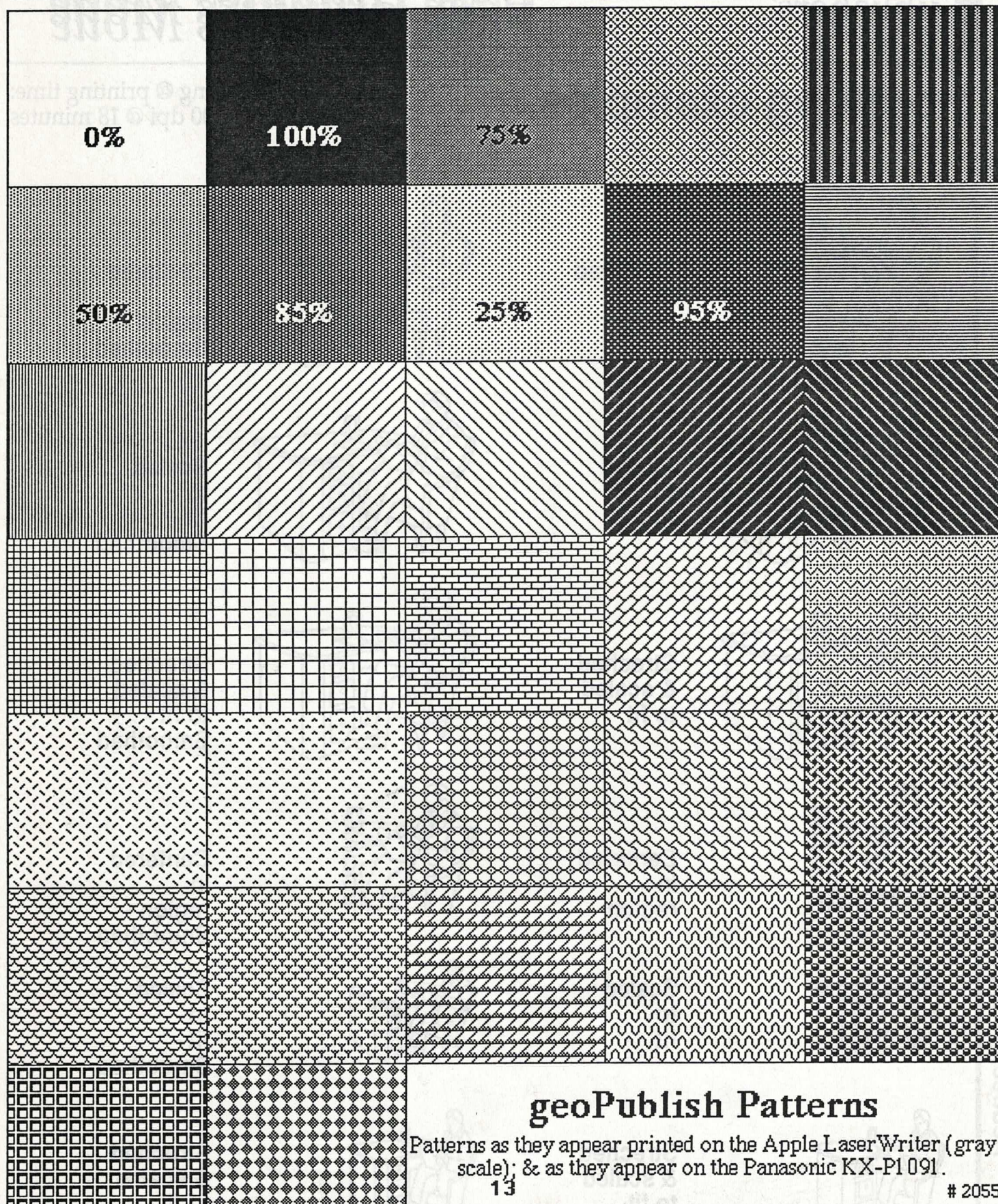
Smoothing examples.
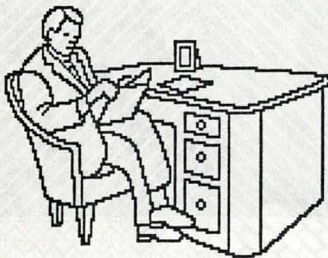
Smoothing @ printing time:
300 dpi @ 18 minutes

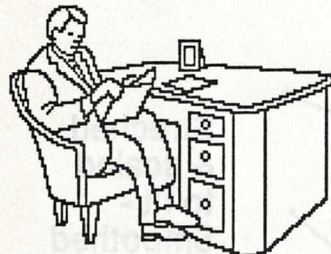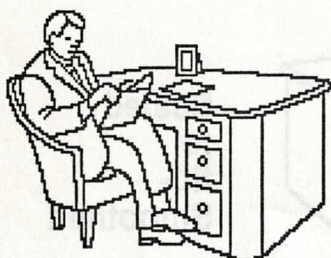**Original Size as Imported**

Centered
in
region

Centered
in
region -
Smoothed

Scaled
to
fit

Scaled
to
fit -
Smoothed

Streched
& scaled
to fit

Streched
& scaled
to fit -
Smoothed

Reduced to approx. 50%

Centered
in
region

Centered
in
region -
Smoothed

Scaled
to
fit

Scaled
to
fit -
Smoothed

Streched
& scaled
to fit

Streched
& scaled
to fit -
Smoothed

Publishers' Kit

Smoothing examples.

Original Size as Imported
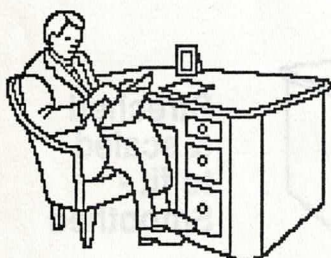
Centered in region

Centered in region - Smoothed

Scaled to fit

Scaled to fit - Smoothed

Streched & scaled to fit

Streched & scaled to fit - Smoothed

Reduced to approx. 50%

Centered in region

Centered in region - Smoothed

Scaled to fit
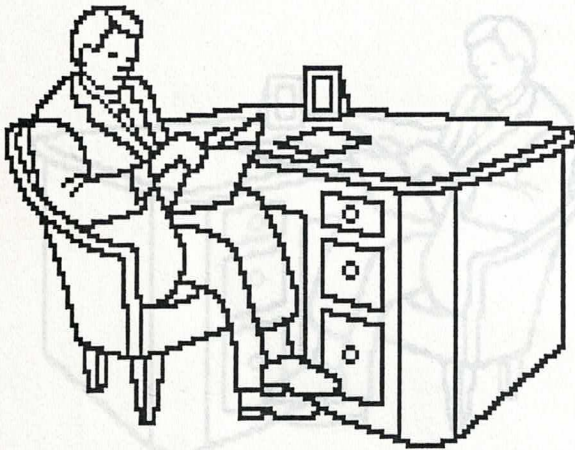
Scaled to fit - Smoothed

Streched & scaled to fit

Streched & scaled to fit - Smoothed

Smoothing examples.

Smoothing @ printing time:
75 dpi @ 4 minutes

Original Size as Imported

Centered
in
region

Centered
in
region -
Smoothed

Scaled
to
fit

Scaled
to
fit -
Smoothed

Streched
& scaled
to fit

Streched
& scaled
to fit -
Smoothed

Reduced to approx. 50%

Centered
in
region

Centered
in
region -
Smoothed

Scaled
to
fit

Scaled
to
fit -
Smoothed

Streched
& scaled
to fit

Streched
& scaled
to fit -
Smoothed

Smoothing examples.

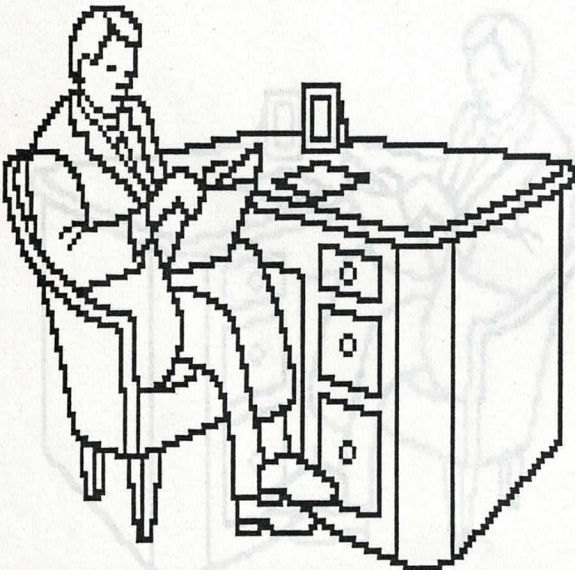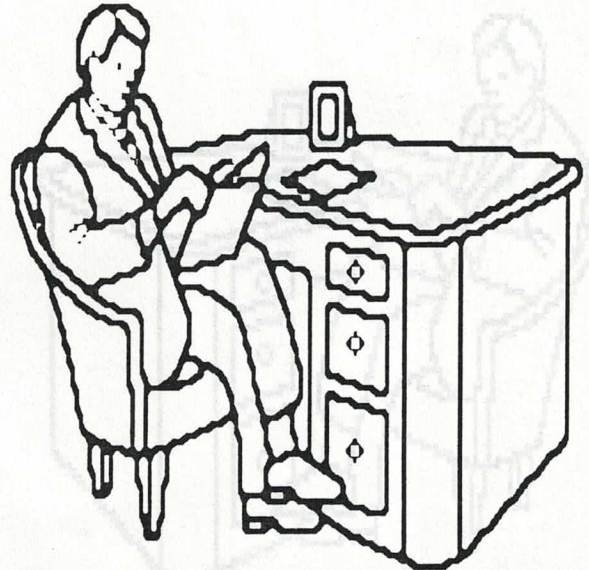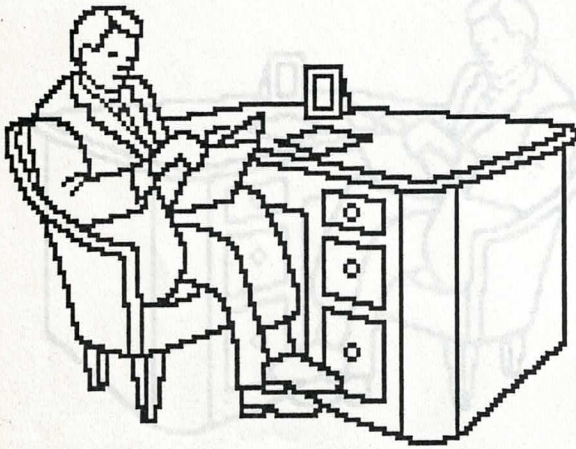Smoothing @ printing time:
300 dpi @ 17 minutes

Enlarged to approx. 200%

Scaled to fit

Scaled to fit - Smoothed

Stretched & scaled to fit

Stretched & scaled to fit - Smoothed

Smoothing examples.

Enlarged to approx. 200%

Scaled to fit

Scaled to fit - Smoothed

Stretched & scaled to fit
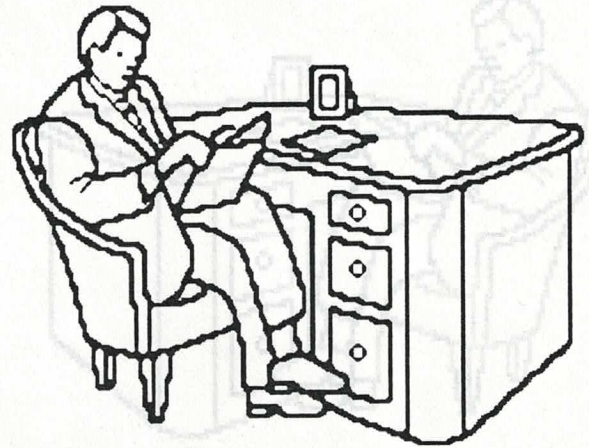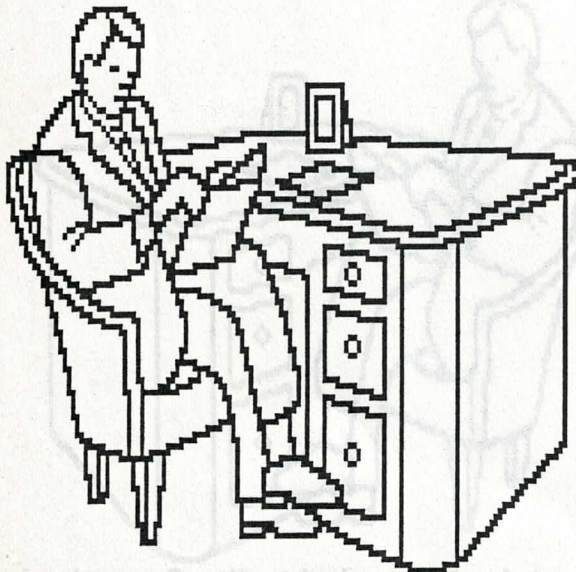
Stretched & scaled to fit - Smoothed

Smoothing examples.

Smoothing @ printing time:
75 dpi @ 3 minutes

Enlarged to approx. 200%

Scaled to fit
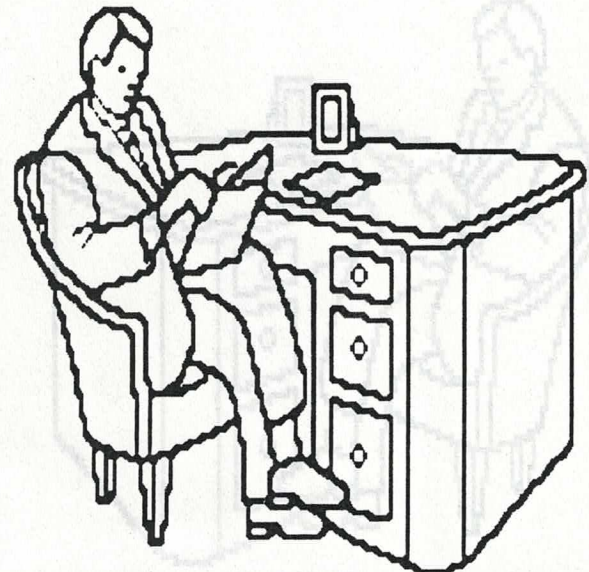
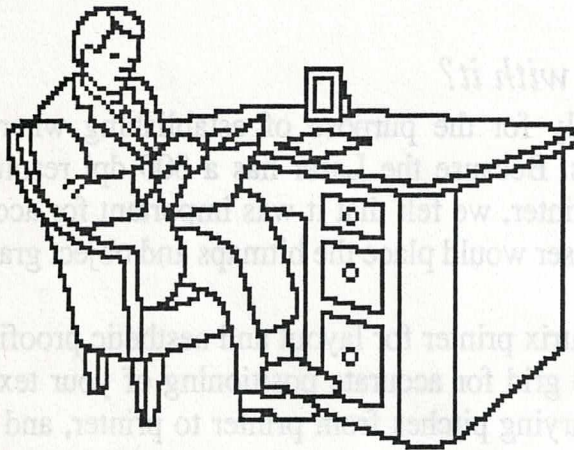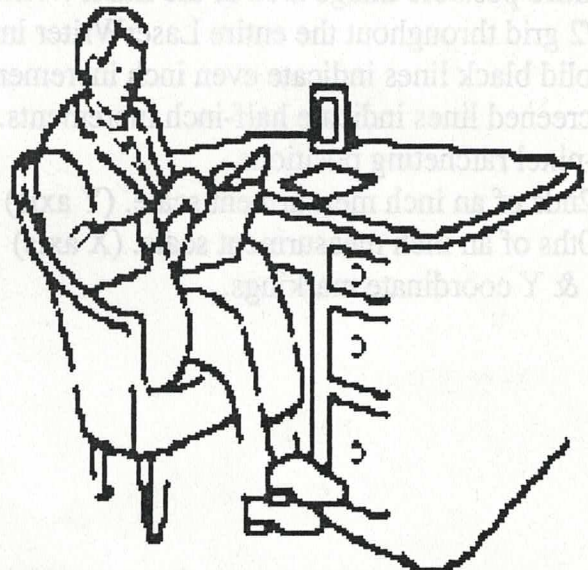**Scaled to fit - Smoothed**

Stretched & scaled to fit

Stretched & scaled to fit - Smoothed

LaserDirect

THE LASER PRINTING CENTER

geoPublish Template Grid

#2050 Transparency
#2051 Paper

Now that I've got this thing, what do I do with it?

The geoPublish template grid was created primarily for the purpose of establishing where the LaserWriter would place the various measurment marks. Because the Laser has a 300 dpi resolution, versus a 60, 72 or 80 dpi resolution from a dot-matrix printer, we felt that it was important for accurate text and graphic positioning to know exactly where the Laser would place the bitmaps and object graphics that it received.

While you should surely continue to use your dot-matrix printer for layout and aesthetic proofing of your geoPublish document, use this geoPublish template grid for accurate positioning of your text and graphics when printed on the LaserWriter. Due to the varying pitches from printer to printer, and from 60, 72 and 80 dpi printers, this positioning template is an invaluable tool during geoPublish document preparation.

Included on the positioning template:
- Entire possible image area of the LaserWriter is utilized.
- 1/2 grid throughout the entire LaserWriter image area.
- Solid black lines indicate even inch increments.
- Screened lines indicate half-inch increments.
- 2-pixel ratcheting positions.
- 72nds of an inch measurment scale. (Y axis)
- 80ths of an inch measurment scale. (X axis)
- X & Y coordinate markings.

This is a grid/ruler calibration page with coordinate markers 1-8 across the top and 1-10 down the left side.

-X-

Y

geoPublish

DeskTop: 1.4
LaserWriter: 2.1
geoPubLaser: 1.0

2 Pixel Ratchet

1/8" (9/72)
1/4" (18/72)
3/8" (27/72)

1/2" (40/80)
3/8" (30/80)
1/4" (20/80)
1/8" (10/80)

Maximum Apple Page Length is 10-19/72

Publishers' Kit

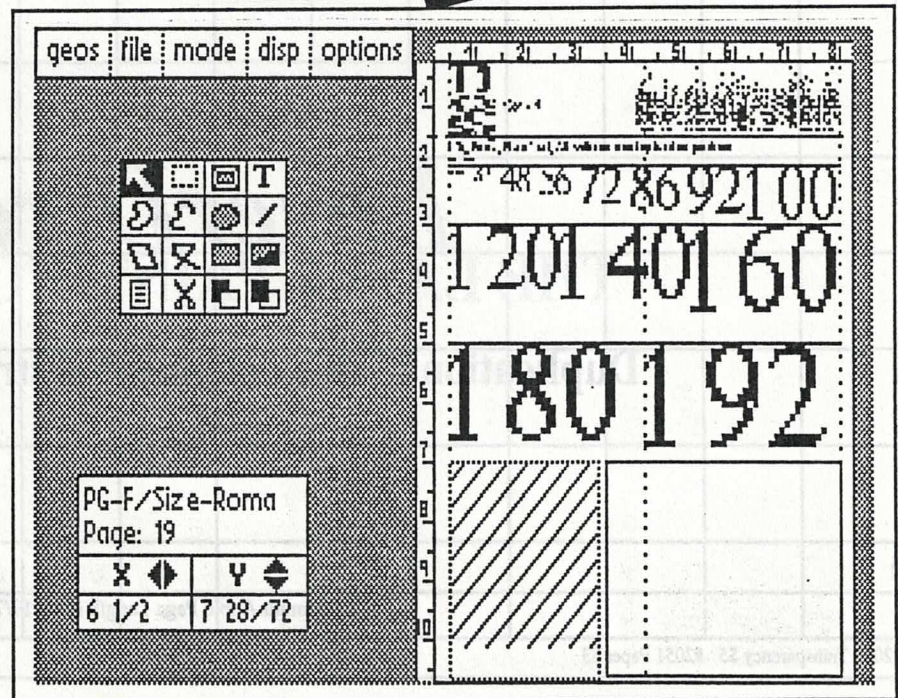**LW_Roma (Times Roman), Plain Text; All with common top baseline positions.**

24 32 48 56 72 8692100

120140160

180 192

With common top and left baseline positions, notice how extra white space is added to the top and left of each point size as it becomes consequtively larger.

Note that the screen image, (and your dot-matrix printout), will indicate that the text is starting at the top baseline position where you placed it. But due to the extra white space being added to the top and left of each character, the text will actually print lower and farther right than it appears.

To place text where you want it to be, use this page as a guide for character height and width. Use the 'Publish template grid to measure the true character height ("Y") and width ("X"), noting the extra white space that is added to the character. Note your "X" & "Y" coordinates and place your text.

| geos | file | mode | disp | options |

PG-F/Size-Roma
Page: 19

X ◀▶	Y ▲▼
6 1/2	7 28/72

LW_Cal (Helvetica), Plain Text; All with common top baseline positions.

24 32 48 56 72 86 92

100 120

140 160

180 192

Plain Text; All with common top baseline positions.

LW_Giannini (Avant Garde)	LW_Bacon (Bookman)	LW_Cowell (Palatino)	LW_Haviland (Helvetica Narrow)	LW_Piedmont (Schoolbook)
24	24	24	24	24
32	32	32	32	32
48	48	48	48	48
56	56	56	56	56
72	72	72	72	72
86	86	86	86	86
92	92	92	92	92
10	10	10	10	10