

DESIGN YOUR OWN HOME™

Architectural Design™

WORKBOOK

Apple version

Created by Don Fudge

DESIGN YOUR OWN HOME™

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INTRODUCTION

The weighty decision to buy shelter becomes even more complicated when you choose to design your own — but the rewards can outweigh the difficulties. Your job is much easier if you let a computer take on the tedious task of making precise calculations and drawing perfectly straight lines. This computer-assisted design program will save you hours, perhaps days, of frustration. Working out your ideas on an electronic drawing board, you can quickly set down your most extravagant house fantasies.

DRAWING THE OUTER WALLS

To see just how simple it is to make precise floor plans with perfect corners, let's recreate the sample plan (fig.1). It's a simple, one-story dwelling, but it does have some luxurious features to stir the interest of any prospective home-owner.

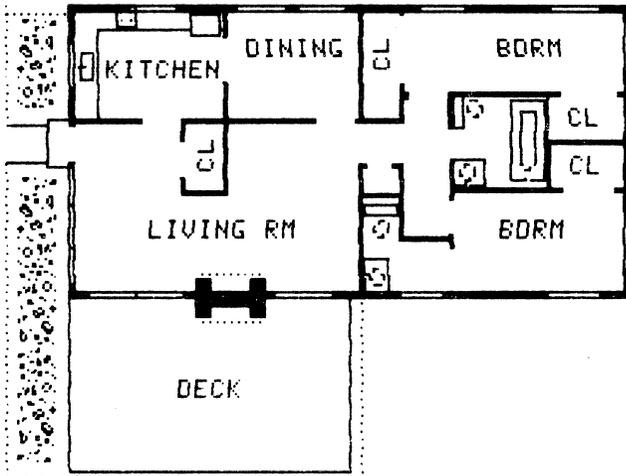


FIG. 1 FINISHED ARCHITECTURAL PLAN

To get started, choose "Scale of Screen" (Item 2) from your program menu. The gauges at the bottom of your screen tell you that the scale is set automatically at 100 feet for the width of the display. However, only about half that space will be used by the 50-foot house we are planning. So, to get a bigger picture of our plan, let's enter 60 for the scale and press <RETURN>. This means that our drawing will take up most of the screen, while allowing ample margins all around.

First we'll draw the longest side of the house. Place your cursor in the upper right corner of the screen (a starting point that allows plenty of room to develop the design) and press the period (.). Your first line will be measured from that point. Calculate wall thicknesses this way: There are 280 horizontal pixels. If your screen scale is 60, there are $280/60$ or $4\frac{2}{3}$ pixels per foot or 2.6 inches/pixel. Therefore, at this scale, exterior walls should be 3 pixels wide and interior walls 2 wide. (If you're going for a high degree of accuracy, however, you'll find that walls one-dot thick may best serve your purpose. You might also note that <CTRL> <F>, which corrects crooked lines, works with lines one-dot thick.) Moving your cursor to the left, measure 50 feet, then type 3 and press the comma (,). The screen displays a line three pixels wide between the two points. If the line is off by one pixel, you can straighten out the kink by pressing <CTRL> <F>.

When you do have to erase, it is a quick and clean process that makes old drafting methods seem downright filthy. Press X, Y and Z keys to select different sizes of erasers. Move the rectangle over the spot to be erased and press the <SPACE BAR>. For larger areas select the right side caret (>) from your command card; the program prompts you to place your

cursor at the upper left corner of the area to be erased. Press the <SPACE BAR>, then place your cursor at the lower right corner of that area. Use the <SPACE BAR> once more, and the whole area enclosed by these points is wiped clean.

Back to construction. To build the side wall on your plan, start out at the left end of your first line, press the period, then move the cursor down 24 feet and press the comma. Now, with two sides drawn, use this method to complete two more sides, forming the basic rectangle of your plan. When you form a corner you may notice that there is a slight gap where the two lines come together. You can perfect this corner by using the left side caret (<) in place of the comma.

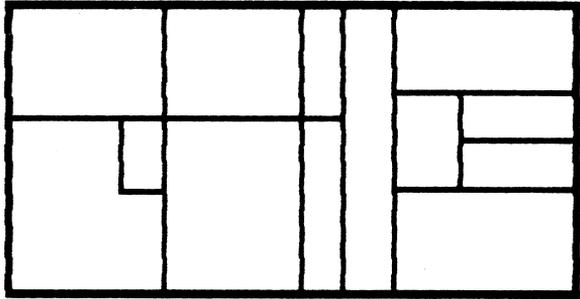


FIG. 2 OUTLINE

DRAWING THE INTERIOR WALLS

Once you establish these outer walls, start outlining the rooms of your house with 2-pixel-wide lines. Move the cursor to an outside corner, press the period, measure along the wall to the intersection with an interior wall, and press the period again, then number 2. When you extend your line and finish it with a comma, the program displays a medium-heavy wall that nicely complements the thickness of the outside walls you've already set down.

Inside walls that are broken by doorways should be drawn as a continuous line, their openings put in later. This method is easier than trying to align inside walls coming towards each other from opposite outer walls.

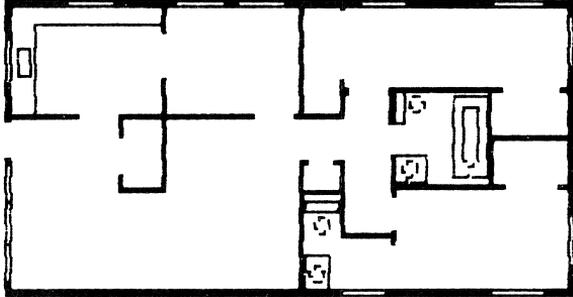


FIG. 3 INTERIOR WALLS

USING A SCALE MARKER

Another trick to make your drafting easier: print a scale marker and measure it in the scale you are using. Erase the scale marker, call up a new one, and move it around the screen as a measuring tool.

<ESC> to delete the marker rather than print it. Call up a scale marker whenever you need to check dimensions.

Note how easy it is to try a wide variety of dimensions within the structure — taking space from one room and giving to another until you've achieved the balance you like. Keeping an eye on the measurements at the bottom of the screen, you can come up with a trim, workable design.

USING VARIOUS LINES

Once you've set down the inside walls, you might try a single-width line to outline the deck on the South side of the house. The fence that goes around the deck and rock garden should also be distinguished with its own style of line. In this case you might try a dotted or

dashed line. The dotted line is formed by starting with a period and finishing with a semicolon; the dashed line will appear between a period and an apostrophe.

ADDING ARCHITECTURAL DETAILS

Now for some of the architectural details. For example, build that massive double fireplace between the living room and deck by selecting the solid square, item N, from the command card. Overlap 2 N's, side-by-side, and erase with Z to make the openings into the living room and the deck.

Of the 126 items to choose from, 26 of the commoner ones can be chosen by pressing letters as well as numbers, from the keyboard. This alternative is simply a convenience, in that many of the items use a letter that corresponds to the first letter of the word. For instance, to choose washbowl for the bathroom, press the letter "W" (or number 51), and that item will appear at your cursor. When you've moved the sink to its final resting place, press your <SPACE BAR>, mouse, or paddle button to secure it.

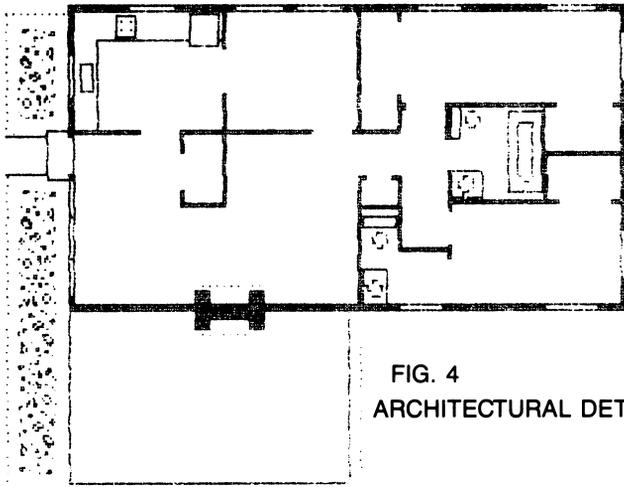


FIG. 4
ARCHITECTURAL DETAILS

The command card offers enough geometric shapes in enough sizes to design almost anything. Note that the hot tub on the deck is the big circle listed as Item 8; the rock garden is delineated with rectangles of textured material (Item 118)

Our sample plan shows plenty of windows in every room. How do we draw them? Windowing is easy, once you change the color of your drawing medium. Assuming that you have started your drawing in white on a black background, simply select color 0 (black) from the menu when you mark off your windows. They will show up distinctly. You might also draw them slightly narrower than the line width of the exterior walls, according to the width setting you can choose after setting the period at the start of a line.

Your work doesn't have to be limited to black and white, either. Try setting off the garden area with green lines or outlining the deck in blue. You may get new insight into your design plan.

Today's architectural designs must create pleasant environments without wasting space, materials, and energy. Designing with this computer program will help you build a beautiful and practical place to live in.

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