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Chapter 1: Introduction

Dream House Professional Features

The quickest and easiest computerized building and sight drawing program for homeowners and professionals alike is Dream House Professional (DHP) by Computer Easy International, Inc.

DHP was designed by the company which also introduced Dream House which draws simple floorplans.

Dream House Professional produces an accurate and complete property sketch and saves valuable time in performing math. Numerous time-saving features allow you to increase your output and consequently increase your profits.

DHP offers you features demanded by leading professionals who know what to expect from software. You'll enjoy:

. *Simple Drawing Controls*

Draw on your electronic sketch pad with a pointer controlled by arrow keys, mouse or joystick. With a mouse or joystick, most sketches are prepared "with one hand tied behind your back" or one-handed.

. *Draw up to four different positive areas and one negative area (for atrium or storage)*

Assign each portion of the sketch to an area type such as living area, garage, patio. Atrium, storage or other negative areas can be drawn to automatically subtract space from the livable space. You may name the labels; you control assignment. The last area type is for negative living space.

. *Automatic Calculation*

Let DHP measure and sum the square footage of each area type. Then display and print a clear list of the calculations. You may alter them as necessary if you wish.

. *Sketch Dimensions for Simple or Detailed Drawings*

Draw a sketch with exterior dimensions as large as 1032 by 902 feet or as small as 43 by 37 feet. Increments between 1 foot per grid and 24 feet per grid may be selected by you for each sketch.

. ***Room Labels in Varied Sizes***

You may select from two font sizes that fit the space of the room you draw. Less abbreviation is necessary to explain the sketch.

. ***Fixture Icons Clarify Sketch***

Indicate doors, toilets, tubs, stoves and circles for sinks etc. with pre-drawn icons. Simply select the icon shape then affix it to the sketch wherever you want.

. ***Dashed Lines and Interior Walls***

Use dashed or solid lines to indicate interior walls, driveways, patios or sidewalks. These lines add detail to your sketch without affecting square footage.

. ***Size or Move the Drawing***

You may easily select a sizing scale for your sketch then later change it. If you begin in the wrong spot and need to move the sketch to use more space, use the pointer to pick it up and move it around the sketch pad.

. ***Continuous or Fixed Angles***

Choose either odd angles of any degree or limit yourself to horizontal, vertical and 45 degree angles only.

. ***Overlay Scaling Grid***

Make drawing easier with a dotted grid which overlays your sketch and make more accurate measurements.

. ***Fix Mistakes Quickly with Oops Key***

Remove only your error; no need to start from scratch even when a mistake was made early in the drawing. Use the Del key to erase latest steps until you find your mistake; fix it then use the Ins key to restore all subsequent steps.

Using DHP Manual

Dream House Professional from Computer Easy is so easy to learn you may not even need the manual. However, you may like to increase your knowledge of the system and find helpful hints and shortcuts by reviewing the manual.

Since you are relying on the manual to teach you how to use DHP, you should first familiarize yourself with the style of the manual. This section presents a list of terms and explains how to interpret directions given in the remainder of the manual. A brief summary of each chapter in the manual is also given at the end of this section.

Terms

You may already be familiar with the following terms. However, it is a good idea to at least skim through the list to be sure you understand the meaning of terms as they are used in the DHP manual.

Anchor - setting the point at which a wall begins or ends; affixing a label to a portion of the sketch. This is usually accomplished by pressing ENTER or a mouse or joystick button.

Command - the one or two key sequence that causes a DHP feature to be used.

Cursor - a bar on your computer screen used to highlight the position where you can make an entry. See pointer.

Enter - when you type in certain characters and then press the ENTER or Return key, you are entering data into the computer. When this manual says to enter a piece of information, it means to type the characters followed by pressing ENTER.

Joystick - a peripheral device that controls cursor movement with a lever that moves in any direction; often used with games.

Mouse - a peripheral device that controls cursor movement by moving a handheld box either on a mouse pad or any flat surface; often used with drawing programs.

Pointer - an arrowhead shaped figure on the screen that replaces the cursor while drawing sketches.

Manual Overview

This manual is organized so that while you are learning to use DHP, you can study it from beginning to end. Later, you can quickly find the information you need to operate DHP smoothly. Both the Table of Contents and the Index can help you locate particular information, and this overview gives you an idea of the contents of each chapter.

Chapter 1: Introduction

The chapter you are currently reading gives you an overview of the DHP program. Important information about how to use the manual and how to use the software is outlined as well.

Chapter 2: Before You Begin

Everything you need to know about installing DHP and entering the program is given in this chapter.

Chapter 3: Using Dream House Professional

Step-by-step instructions for using DHP software are given in this chapter. Many of the screens are given as examples and each DHP option is explained in detail. Also, printing procedures are given.

Chapter 4: Tutorial with Sample Sketches

After reviewing the preceding chapters, it may be easiest for some users to learn about

DHP with a tutorial. A sample sketch is included with your program disk and this chapter guides you through each feature with hands on teaching.

Chapter 5: Trouble Shooting

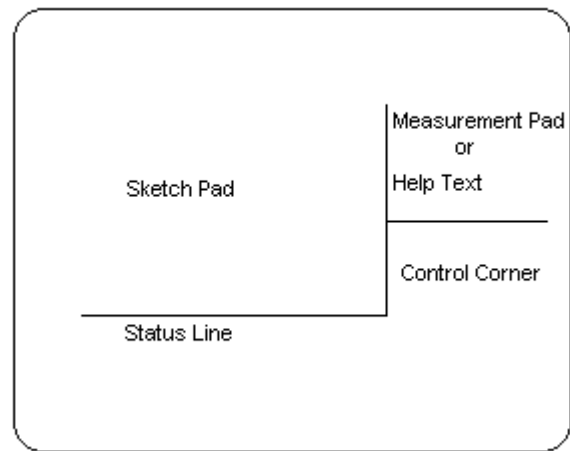
Common questions asked by DHP users are explored in this chapter along with possible answers and ways to avoid problems.

Using DHP Software

While Chapter 3 explains the actual operation of DHP features, you should also know the general guidelines for using the program. This section explains certain concepts and frequently used commands.

Screen Layout

The DHP screen is divided into four basic sections as shown below:



All drawing occurs in the Sketch Pad area. Measurement calculations will show in the upper right corner when the M key and F9 key are pressed. A list of commands is given as Help Text when appropriate and the status line prompts you while using commands. The control corner shows different information about each feature such as the scale you are drawing in or length of a wall being drawn.

Function Keys

There are ten keys, labelled F1 to F10, either on the left side of your keyboard or across the top row. These function keys are used to invoke commands in DHP.

The first five, F1 to F5, are used to indicate a type of building area you will be drawing before you begin drawing the portion of the sketch representing the space (e.g., F1 is living area, F2 is garage space, etc.). The labels on these keys can be changed by holding the ALT key and pressing the F1, F2, F3, F4 or F5 key, but F5 always represents negative space on the sketch such as an atrium or storage area.

The Alt F6 key is used only to change the label on the command for interior walls.

The F7, F8, and F9 keys are used in the measurement mode only.

Peripheral Devices - Mouse and Joystick

Drawing sketches with DHP is much easier when you use either a mouse or a joystick. Your efficiency and speed will greatly improve if you use a mouse.

Refer to the manual that comes with your mouse or joystick for information about installing and using this equipment.

Naming and Saving Sketches

Each sketch is saved to a filename you assign. A filename may be up to 30 characters long including the filename (eight characters and a three character extension), disk drive assignment and subdirectory. The simplest filenames may look like these:

SKETCH1
JONES.DHP
FILENAME.EXT

If you also want to include a drive designation, the filename would look like this:

A:SKETCH1 When SKETCH1 is on Drive A
B:JONES.DHP When Jones, DHP is on Drive B
X:FILENAME.TXT When a file is on any drive, such as X

If you have a hard disk and use subdirectories to separate files, you may have filenames like these:

C:\DHP\SKETCH1 When SKETCH1 is in the DHP

subdirectory on Drive C

The way you assign file names to your sketches makes a big difference in your ability to easily recall the name and bring up the sketch. If you take care in assigning filenames in an organized manner, finding files again in the future is easier.

You may want to determine a system of naming sketches now. This may be a numeric system (e.g., SK000001 to SK999999), an alphabetic system perhaps by client's last name and first initial (e.g., ADAMSJ, SMITHR, etc.) or any other clear system.

Chapter 2: Before You Begin

By now, you may be anxious to begin working with DHP. Before you do, read through this chapter to install DHP.

Hardware Requirements

To use the Dream House Professional program, your computer must satisfy these basic hardware requirements:

- . IBM Personal Computer (PC, XT, AT or PS 2) or compatible
- . At least 246k Random Access Memory (RAM)
- . At least one 360k 5¼" or one 3½" floppy drive
- . Hercules Monochrome or Color Graphics card or compatible (EGA, VGA, MCGA . . . etc.)
- . MS-DOS or PC-DOS version 2.0 or higher
- . IBM or Epson dot matrix, HP, Canon Laser or compatible printers

In addition, you may also want to use a peripheral device to make drawing sketches easier. DHP works faster with a mouse or a joystick. Each of these devices may also require the addition of a user interface card in your computer. Check with your hardware dealer about these items.

Hardware manufacturers often claim to be compatible or comparable to particular

brands of hardware. The degree of compatibility varies and must be considered carefully. DHP makes use of specific features available with IBM PS/2 and Personal Computers. DHP also uses IBM or Epson printers or Hewlett Packard Laserjet which many printer manufacturers emulate.

ComputerEasy can only support hardware configurations conforming to the above requirements. While variations to these requirements may not affect the performance of DHP software, it is wise to avoid the troubles associated with less than "true compatibility." Contact ComputerEasy if you have any questions regarding your hardware configuration.

Making Backup Copies

Before you do anything else, make a back-up copy of Dream House Professional.

To Floppy Disk:

One Floppy System

1. Have a blank disk ready to use as your back-up disk.
2. With a DOS disk in Drive A, type: **DISKCOPY** (press ENTER)
3. Remove the DOS disk from drive and insert Dream House Professional.
Press ENTER to begin.
4. Switch between the Dream House Professional disk and the blank disk when the computer prompts you.

Two Floppy System

1. Have a blank disk ready to use as your back-up disk.
2. With a DOS disk in drive A, type: **DISKCOPY A: B:** (press ENTER)
3. Remove the DOS disk from drive A and insert Dream House Professional.
Insert the blank disk in drive B. Press ENTER to begin.

Hard Drive Installation Procedure

Before you can use DHP, your hardware and software must be installed properly. This means you must have assembled the hardware components and cabled them correctly. Also you must initialize peripheral equipment - mouse driver (see Appendix A for more information).

On your DHP disk is an installation program called INSTALL.EXE. This program is used to complete the hard drive installation procedure. This process transfers the DHP system to your hard disk so that you may operate the program without using the floppy drive.

Place your DHP program disk in your floppy drive. From the operating system prompt, C>, type:

A:INSTALL (If your 5.25" disk is drive B, type: **B:INSTALL**)

Simply follow the instructions given on the screen.

Or, if you are familiar with DOS commands, you can install it yourself following the steps below:

1. Make a subdirectory on your hard disk called \DHP. (**MD\DHP**)
2. Change to your DHP Directory. (**CD\DHP**)
3. Copy all of the files from your Dream House Professional disk to your hard disk. (**COPY A:*. *C:**) This assumes that your floppy disk drive is drive A: and your hard disk is drive C:.
4. Type **PRINTER** to select the printer type and configuration.

Entering DHP System

After DHP is installed, entering the program involves turning on your computer, changing to the DHP directory and typing: DHP.

When your computer is on and DOS is loaded, the operating system prompt displays (e.g., A> or C>). Simply enter DHP.

First load driver programs for your mouse. For example, at the operating system prompt, you might type:

```
MOUSE  
CD\DHP  
DHP
```

GO.BAT

A special batch file named GO.BAT is provided on your DHP disk to help you step through the loading of the appropriate printer driver for your system.

From the DOS prompt, type:

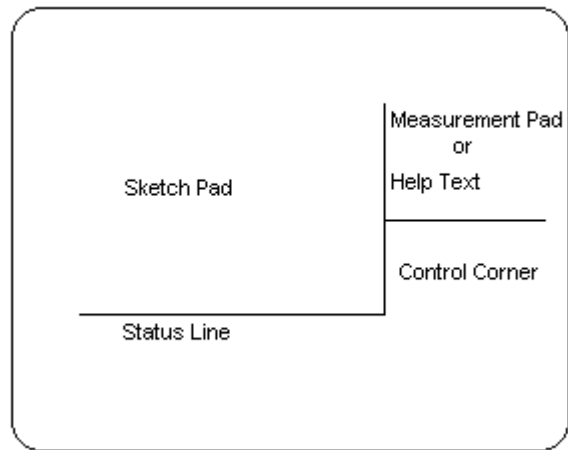
GO and press ENTER

Or, if you want to automatically load a sketch on the screen after the program selects the printer driver, type:

GO SKETCH (where SKETCH is the filename) and press ENTER

Main Screen

Once you enter the DHP system following the instructions in the previous section, this screen should appear:



This is the main Dream House Professional screen. The pointer rests in the upper left corner in the sketch pad area - where drawing occurs. The list on the right side is a summary of the commands available in DHP called the main help selector. At the bottom of the list is a box used to show messages and prompt you while using certain commands called the control corner. The last line on the screen is the status line which also helps you recall what you must do while using each command.

Each option is explained in Chapter 3. Refer to the appropriate section for details on

DHP features.

Exiting DHP System

Each option of DHP provides a method for returning to the main screen (usually pressing ENTER or completing the feature in use). When you finish working with the DHP program and want to exit to DOS, simply return to the main Dream House Professional screen and press the Alt and Q keys simultaneously.

The system asks if you have saved the sketch you were working with. If you plan to reuse your sketch in the future, please save your sketch before exiting the program! DHP reminds you to do this but if you ignore this reminder you could lose the sketch you were working with. [Note: you may save your sketch as often as you like and continue working right where you left off. You must answer Y to get to the operating system.]

Always remove floppy disks, replacing them in their protective envelopes, and turn off your computer when you are finished for the day.

Chapter 3: Using Dream House Professional

Pointer/Cursor Movement

Dream House Professional (DHP) is essentially an electronic drawing board and the cursor is your pen. In DHP, the cursor is represented by an arrow shaped pointer that helps you position parts of your sketch.

You control the pointer with the arrow keys on your keyboard, with a mouse or with a joystick. If you have more than one of these, you can use them in any way that is convenient for you.

Arrow Key Pad

Using the up, down, left and right arrow keys allows you to move the pointer to any position on the sketch pad. To use fine motion (smaller increments of space moved), use the arrow keys with the Shift key. In addition the following keys may be used:

PgUp - moves at an angle towards the upper right.

PgDn - moves at an angle towards the lower right.

End - moves at an angle towards the lower left.

Home - moves at an angle towards the upper left.

While you are drawing walls, the control corner shows the exact location of the pointer and the distance moved or length of the wall.

Mouse

If you have a mouse, drawing with DHP is easier and faster requiring just one hand to do the majority of the work. The mouse must be installed properly, of course, and the

mouse driver loaded (a command from the operating system, often included in your automatically loaded file AUTOEXEC.BAT).

When the mouse is ready to use and you are not in the DHP program, you may move the mouse to control the movement of the pointer. The pointer is freely positioned in this way although it takes some practice to control horizontal and vertical motion accurately.

Sometimes when you reach the edge of the table or mouse pad you may need to pick up the mouse and put it back down again to reposition it.

The buttons on the mouse are also used to make drawing easier. The left mouse button can be used the same as the ENTER key on the keyboard. This way you may anchor lines with the mouse rather than pausing to place your hands on your keyboard.

The right mouse button is used for fine motion as the Shift key is used with the arrow keys. To move in small increments, hold down the right mouse button while moving the mouse in any direction. When drawing walls, the control corner allows you the exact location of the pointer and the distance moved.

Joystick

If you have a joystick, you will benefit from faster and easier control of the Dream House pointer, even though two hands are generally required to move the stick and press the button.

The bottom joystick button can be used the same as the ENTER key on the keyboard. This way you may anchor lines with the joystick rather than pausing to place your hands on your keyboard.

The top joystick button is used for fine motion (moving in small increments). To use fine motion, hold down the top joystick button while moving the stick in any direction. While drawing walls, the control corner shows you the exact location of the pointer and the distance moved.

DHP Commands

This section is for reference and lists each command in alphabetical order as shown on the DHP Menu. See the Tutorial Samples in Chapter 4 for step-by-step instructions

that detail the order in which commands are used.

When you first enter Dream House Professional the title screen appears. After pressing a key, the help text appears, and the pointer rests in the upper left corner in the sketch pad area - where drawing occurs.

	<pre>* Key Function Summary * F1 - F5 = Start area 1-5 ↑↓←→ arrows move pointer shifted arrows move fine <Enter> accepts position A - compute Area sq. feet C - Close up an area D - change drawing scale F - list of Files on disk G - overlay scaling Grid H - Help ---more keys--- I - Start Interior wall J - Join to near corner L - Load sketch from disk M - Measurement calculate N - add room Names R - Redraw screen (fixup) S - Save sketch to disk</pre>
<pre>Press F1 ... F5 to begin drawing area. Press Alt-Q to Quit.</pre>	
<pre>F1=Livable F2=Garage F3=Patio F4=Storage F5=Atrium</pre>	

The list on the right side is a summary of the commands available in DHP called the main help selector. At the bottom of the list is a box used to show messages and prompt while using certain commands called the control corner. The last line on the screen is the status line which also helps you recall what you must do while using each

command.

The remainder of this section explains each command you may encounter while using DHP.

Function Keys: these keys are labelled F1 to F10 on your keyboard and are either in two columns on the left of your keyboard or across the top row. Notice that F1 to F5 are listed on the status line of the main Dream House screen. The remaining function keys are used with the measurement calculate command (explained later).

Each function key, F1 to F5, is assigned to a building area (e.g., F1 in living area). To begin drawing any portion of a building you must first indicate the type of building area it will be. Then DHP can sum the areas drawn for each type. Negative area is tabulated for F5, whether it is labelled an atrium or not.

You may change the label on each of these function keys by pressing Alt and the corresponding key (e.g., Alt F1 to change F1 Livable to Living or Alt F2 to change Garage to Carport, etc.).

When you are ready to draw, press the function key corresponding to the type of area (e.g., press F1 to draw livable area) and this line appears on the status line:

Positioning for start of Livable area wall. <space aborts>

If you didn't mean to select this, press the space bar to stop. Notice that the control corner shows pointer location. Move the pointer with the arrow keypad, a mouse or joystick. Anchor the position by pressing ENTER, the left mouse button or the bottom joystick button. This appears:

Drawing Livable Area Wall

Move the pointer in the direction of the wall you want to draw. Watch the control corner to see the exact length the pointer has travelled. In the default grid setting, the pointer moves two feet at a time. To move fractions by tenths of a foot, press the Shift key and any arrow simultaneously or use the right mouse button (top button for joystick users). When you have the pointer position at the end of the wall, press ENTER or the left mouse button (bottom joystick button) - the wall and this message appears:

Positioning Dimension for this wall - (Space) Erase Unwanted
Dimension

Notice that DHP displays the length of the wall as a dimension which you can move with arrow keys, mouse or joystick. Move the dimension to the position you want, either inside or outside the wall, centered or to one side. Then press ENTER or the left mouse button. If you don't want the dimension shown, just press the space bar to

erase it before anchoring. This message appears again:

Drawing Livable area wall

Continue drawing walls and anchoring dimensions until you return to the original starting point for this type of living area. Next, you must finish this area by using C - Close up an area (explained later in this section).

A - compute Area square feet: this command shows the current total square footage of each type of living area (function keys F1 to F5) assigned. Press A and the figures appear in the control corner. To continue, just select the next command.

C - Close up an area: When designing a new home or measuring an existing structure, you often make tiny mistakes along the way so that when you are all done drawing a section of your floorplan, the ending point does not exactly meet the starting point. Since this is not possible in a real building, DHP provides an automatic closure function to reconcile these tiny mistakes.

Use the Close command when you believe you have completed drawing an area of your floorplan. Press C and the message corner will say, "Livable Area Closed," if you have made no mistakes. If there is an error, a pointer will appear along vertical or horizontal walls that you may need to change. Tell DHP which wall(s) you would like to change to make the structure close up perfectly by moving the pointer (with the arrow keys) to the wall you would like to change.

To select a wall to change, press ENTER key when the pointer is on the wall you want to change. When the selection has been made, the sketch will be redrawn automatically adjusting the dimensions and closing the area.

D - Change Drawing scale: DHP defaults to a scale of two foot increments. Press D and you may change the scale when this appears in the control corner:

Scale in feet per Grid
Old = 2 New = 2
Max - Size = 86.0

Max - Size = 75.2

This shows you the current grid settings and the maximum allowable dimensions. This appears on the status line:

use « arrow keys to expand or shrink scale

Press the left arrow key to shrink the scale to a minimum of 1 foot per grid. Press the right arrow key to expand the scale to a maximum of 24 feet per grid. When you are satisfied with the scale, press ENTER to accept it.

E - Eject page: Press E to eject the page after the next sketch is printed (for printer configurations having more than one sketch per page).

F - list of Files on disk: you may need to verify the existence or name of a particular file. To do this, press F and this appears on the status line:

Files listing for which drive (A...Z)?

Press the letter corresponding to the drive you want to check (e.g., press A for Drive A). A list of files appears on the screen and bytes free (amount of space remaining on the disk). When you have finished with this option, press any key (e.g., the ENTER key) to return to your sketch.

G - overlay scaling Grid: this option places a dotted grid over the entire sketch drawing area. This may help you draw more accurately. Press G to overlay the grid which corresponds to the scale currently in use. To cancel the grid, use R - Redraw screen (explained later).

H - Help...more keys... another list of commands and help messages may be displayed by pressing H. Each of these commands is explained later in this section. To see each page of help, press the space bar. To return to your sketch, press ENTER.

I - start Interior wall: interior walls partition an area without affecting square footage or add clarity to the sketch (e.g., property perimeters). With this command, you may draw lines anywhere on your sketch. Press I and this appears on the status line:

Positioning for start of Interior area wall. <space> aborts

Like area walls initiated with function keys, move the pointer to the start position desired. You can use J - Join to nearest corner here (explained next), or move the pointer freely with the arrow keys or mouse, using the meter in the control corner for exactness. Remember you may use fine motion to move by tenths of a foot by pressing the Shift key and arrow keys simultaneously or holding down the right mouse button. When you have the pointer where you want to begin, press ENTER or the left mouse button. This appears:

Drawing Interior Wall. <space> stops

Move the pointer in the direction required. If you positioned the first point wrong, press the space bar to start over. Otherwise, anchor the wall at the correct point. Continue with the next interior wall, anchoring as you go. After the last anchor is set, press the space bar to stop. You may need to use the R - Redraw command to refresh the screen.

J - Join to near corner: this command moves the pointer automatically to the nearest corner point. This is a handy way to position the pointer before drawing interior walls or appending areas. Simply get the pointer closer to the corner you want to join and press J.

L - Load sketch from disk: to continue working with a sketch you have saved to disk, press L and this appears on the status line:

Load from which sketch file?

Enter up to 30 characters for the filename (e.g., SKETCH) with a drive designation (e.g., A:SKETCH) and subdirectory (e.g., C:\DHP\SKETCH) if required. If you are accessing a floppy disk, be sure to insert the correct disk before pressing ENTER. You can use the F - list Files on disk command to check for filenames on a drive before loading with this command. Once DHP finds the file, it automatically displays

in the sketch pad, overwriting any sketch that was previously displayed (be sure to save the previous sketch if you want to use it later).

M - Measurement calculate: this command gives you a list of closed off areas in square feet as well as a subtotal of each living area type. Press F9 to measure the current sketch and a list of measurements appears where the main help selector was. Summaries of each type of living area appears in the control corner and this appears on the status line:

AltH=Help AltR=Resume-Sketch AltP=Rdy-Prt F7+Clr Meas F8=X's F9=Auto Meas

While working with the measure command, you may use these:

Help: press Alt and H to get help for the measure command.

Resume Sketch: press Alt and R to continue drawing your sketch.

Ready Print: press Alt and P if you are satisfied with the measurements and are ready to print a copy of the sketch. All clutter is removed leaving only the sketch. To go back to measuring, press ENTER. To print press the Shift key and PrtSc (print screen). On the 101 key keyboard, press only the Print Screen key.

Clear Measurements: press F7 to remove the list of measurements and start over.

Add X's: press F8 to clear measurements, leaving 15 lines of X's and = (equal signs). Then you may enter your own measurement figures. Use the Tab key to skip over an X for quick entry of measurements.

Automatic Measurements: press F9 to let DHP calculate measurements from your sketch. In most cases, it is a good idea to recalculate this way immediately before printing to be sure the calculations match your sketch.

While using F7, F8 or F9, you may move around within the measurement pad with the ENTER key or the arrow keys. Change the figures as required then use resume sketching (Alt + R) or prepare to print (Alt + P).

N - add room Names: you may add any text you like to the sketch by using this command. Press N and this appears on the status line:

Type room name or title 25 chars or less.

Enter up to 25 characters for the name. When you press ENTER, the name appears on

your sketch and you may move it freely to the position desired. This message appears:

Positioning Room Name or Title. <space> aborts

Anchor the name once you have placed it correctly. To cancel the name if it doesn't fit or isn't right, press the space bar. If the name didn't fit, you may press F5 to switch to a smaller font before typing the name. To switch back to the large font, press F5 again. The control corner indicates the currently selected font sizes.

R - Redraw screen (fixup): sometimes sketches become complicated and are partially erased when deleting and inserting portions. To freshen the screen and see just what the sketch looks like, press R to redraw the screen.

S - Save sketch to disk: once you have finished working with a sketch you would like to keep, press S and this appears:

Save the file to what file name?

Type a name, up to 30 characters, with a disk drive with subdirectory if necessary (see samples for L - Load sketch explained earlier in this section). DHP accesses the default drive or the drive specified before the filename and copies the sketch to a file. This appears in the control corner:

Sketch Saved

T - Test for area closure: to test an area for closure Press T and DHP shows you how close an area is to closure. This appears in the control corner (example):

Test for Closure
Need 4.5 ___ More
Need 21.7 ____ More
To close area

This tells you by how much your sketch is off. You can automatically adjust the sketch (using the close command) to provide perfect closure.

V - Video color: Pressing the V key steps through the different screen colors available.

Additional Keys

Alt F1-F5 - Rename areas: to change the label given to each type of sketched area, simply press Alt and the function key you want to change (e.g., to change Atrium, press Alt and F5). This appears:

Renaming Atrium area to

Type up to 10 characters to label the function key you selected. When you press ENTER, the label is changed for the current sketch only. To leave the name unchanged press ENTER.

Alt F6 - Rename Interior: to change the label used with interior walls, press Alt and F6 then type another label as explained above for renaming areas. This is seen when using command I - Interior wall.

Alt A - Angles On/Off: when angles are on, you may draw lines with any degree of angle. When angles are off, you are limited to horizontal, vertical and 45 degree angles only. The message in the control corner lets you know which type of angles you may draw. To turn angles on or off, press Alt and A simultaneously.

Alt C - Clear sketch: if you are not satisfied with the sketch you are drawing and want to start over, press Alt and C. This message appears:

Do you want to lose this sketch and start over (Y/N)?

If you selected this option by mistake, enter N to retain your sketch. Otherwise, press Y and the sketch is cleared.

Alt D - Dashed line: to draw a dashed line for a patio or sidewalk for example, press Alt and D. Then, like an interior wall, anchor the line (press left mouse button or ENTER key), draw a line (by moving the mouse or using arrow keys) and anchor it again. Continue until you have completed the dashed lines needed for the area you are drawing. This does not add square footage to any area type. If you want a dashed line for a measured area, first draw it using F1 to F5. Then, trace over the line with a dashed line using Alt and D.

Alt I - add Icon: a whole screen of icons representing household items (e.g., doors, bathtubs, circles, etc.) is available for your sketches. Press Alt and I and the screen

appears. To select an icon, enter the corresponding number and the sketch reappears with the selected icon attached to the pointer. Position the icon (using fine motion if necessary) and anchor it in place by pressing ENTER.

Alt K - Kill a file: to erase a sketch file from your disk, press Alt and K. This appears:

Kill which file (example A:TEST.DAT)?

Enter the name assigned to the file as with the Save command, up to 30 characters. To cancel this command without erasing a file, just press ENTER without typing a sketch name.

Alt M - Move sketch: if you need to reposition the sketch on the sketch pad to allow more room on the border, press Alt and M. Then, use the pointer to move the sketch to the new position and press ENTER. Movement is in relation to where the pointer was when you called this command.

Alt P - Ready to Print: when the sketch is complete or you want to print a hard copy, press Alt and P. Status line prompt messages are cleared from the screen leaving only the sketch. This command is most often used while in the measurement pad (command M). To cancel without printing, press ENTER. If you are satisfied with the sketch, press Shift and PrtSc. It is good practice to calculate measurements (command M and F9) immediately prior to printing to be sure the totals reflect those of the drawn sketch.

Alt Q - Quit (exit): when you are finished working with DHP, press Alt and Q. This appears:

Before we quit, did you Save your sketch (Y/N)?

If you forgot to save the sketch, enter N and use the Save command.

Alt S - printer Status: to check the amount of free memory remaining, mouse or joystick status, printer selection and configuration, press Alt and S. This appears (example):

```
Free Memory = XXXXX  
IBM/Epson dot-matrix  
large sketch letter size
```

1 sketch per page

Del - Delete last entry: to erase what you have just drawn, press the Del key. You may continue pressing Del to erase each part of the sketch (in the reverse order they were entered). The Del key, when used with Ins, is a very useful correction system.

Ins - Restore deleted entries: after using Del to erase a part of the sketch, you may use INS to bring those parts back. This way you may use Del to go back to a part that is wrong, correct it and replace all subsequent steps used to draw the sketch. You lose nothing but the incorrect portion of the sketch drawn thus far.

When you go back to correct parts of a sketch, you can change the length of walls or the position of dimensions or icons. You can not add a new wall or icon in the middle of a sketch. If you try to insert new walls or icons, you will not be able to use the insert key to restore the remainder of the sketch correctly.

Shift + PrtSc - Print Dream House: to print what is displayed on the screen, press Shift and PrtSc. Generally, you will print in measurement mode and use Alt and P first to clear clutter from the screen and print the sketch only.

Printing Sketches

The main purpose for Dream House Professional is to print professional, accurate sketches. You may print as many copies as required or print sketches at as many various stages as necessary.

Your printer must be properly installed and cabled to your computer and the correct printer driver selected (See Chapter 2, Installation Procedure).

The DHP disk has included on it a printer driver selection program called PRINTER.EXE. It selects the printer driver for your system and selects the configuration of the printer, including paper size, sketch size and number of sketches per page.

You may print copies of the sketch at different stages to check your work or to take on site. Or, once you have completed the sketch and saved it, you are ready to print the

final copy.

To print a sketch it must be displayed on your screen. Then, press Alt and P together. The screen then shows the sketch exactly as it will appear in print. If you are satisfied with the sketch on the screen, simply press Shift and PrtSc (print screen) to send the sketch to your printer.

Before printing the final copy, you should be in the habit of recalculating measurements. Use the M - Measure command and F9 to automatically measure each type of sketched area (sum by F1 to F5). This give DHP a chance to incorporate any last minute changes you may have made. As long as the measurements agree with your sketch, you may print. Print by pressing Alt and P which clears clutter from the screen, then Shift and Prt Sc (on 101 keyboards press the Print Screen key only).

Press Shift and PrtSc. DHP prints the graphic screen. Even the text portion is really graphics, which is why the dimensions and comments are larger. After the sketch prints, press any key to return to the sketch pad.

Printing a Batch of Sketches

You may eventually want to print a long list of sketches. There is a way to do this without loading and printing each one individually. You simply create a special list of sketch file names and use a program that prints the batch of sketches.

First create a list using a word processor, noting the name of the file. Or, you may use the DOS copy command as follows:

From the operating system prompt (A in the sample below), type:

A>COPY CON: SKETCHES (use any filename you like, up to 8 characters)

Press ENTER and the cursor moves to the next line. Type the name of each sketch on a line, pressing ENTER between sketch names. If you have selected a printer configuration which allows more than one sketch per page, and you would like to print less than a full page of sketches, put a / (forward slash) before the last file name to be printed on the page. This will cause the paper to eject immediately after the last sketch is printed even if the page is not full. For example:

```
SKETCH
/SK1
/SK2
C:\MYDIR\MYFILE.DHP
```

(you may access another disk or directory to find the file, but the file must be on that disk - the floppy must be inserted in the drive if accessing a floppy disk.)

When you have finished typing the list, end the COPY CON command by pressing Ctrl and Z or F6 then ENTER. You must type carefully using COPY CON. If you make a mistake, press Ctrl + Scroll Lock or Break to begin again at the DOS prompt.

Printing the Batch

After you have created the batch file list of sketches, use the DHPBATCH program to print, type:

DHPBATCH

The program is initialized and this appears:

Do you want a grid (Y/N)? ESC to exit

Enter Y if you would like each sketch to print on a grid. Otherwise, enter N to print sketches without a grid. This appears next:

Do you want Area Totals printed in the lower corner (Y/N)?

Enter Y to include area totals for each sketch. Otherwise, enter N to print the sketch only. This appears:

Enter the name of the sketch list file:

Type the name you used when creating the list of sketches (SKETCHES in our example) and press ENTER. Each sketch is printed and sent to your printer. If DHP can't find a sketch by the filename given or on the disk indicated, it prints:

SKETCH NOT FOUND

on a blank sheet of paper, continuing to the next sketch. When DHPBATCH is finished, the program returns to the operating system.

Chapter 4: Tutorial with Sample Sketches

Some users find learning about a new program easiest with a tutorial. Actual sample sketches included with the program disk are used in this chapter and guide you through each feature with hands on teaching. Print samples of sketches are also included here.

You may want to skim through the preceding chapters before beginning the tutorial to get an idea of DHP features and operations. References to appropriate manual sections are made throughout the tutorial for your convenience.

DHP Tutorial

First you will look at an already completed sample sketch included with the DHP program disk. Then the tutorial will guide you step-by-step through drawing simple sketches. Finally, a summary of DHP commands and a list of tips are given to complete your introduction to Dream House Professional.

Remember that anytime you see instructions to enter information you must use the ENTER key to complete the command. The enter key is often called carriage return, CR, return or enter but it always means the same key which may be labelled on your keyboard by any of the names or with a crooked arrow. In this manual, when you see ENTER, it means to press the enter key.

Because you will be working with a sample sketch stored on the DHP Program Disk, begin by placing that disk in your floppy Drive A.

Begin the tutorial by typing: **GO** and press ENTER. Follow the directions which will appear on the screen and select the type of printer you have, and the configuration you like best.

Press any key to clear the copyright notice and the DHP drawing area or "sketch pad" and Main Help Selector should now be displayed. The last line on the bottom of the screen is called the status line which displays messages to help you complete commands. The lower right area is called the control corner which also displays information you may use as reference.

Notice the list on the right displays help text. Read through it and try to remember as many commands as possible, though many are explained in more detail later.

Remember that commands using Shift or Alt means you must hold that key while pressing the key following it. Press H or Alt H for more Help text. Read through all of the Help text now, pressing the space bar to see each subsequent help screen.

Once you read through all the Help text press ENTER to resume sketching.

Loading an Existing Sketch

Press L to Load sketch from disk and type:

A:SKETCH

for the filename. You may use upper or lower case but you must remember to press ENTER.

DHP looks for the sketch file SKETCH, loads it into memory and displays it on the screen. This is a complex sketch, but soon you can draw them easily.

When you finish with a sketch, you can save it to a disk with the S - Save sketch to disk command.

[Note: Dream House Professional is designed to run independently from other software products. Disk prefixes and file naming conventions will default to DOS configurations.]

Now, you could save SKETCH back to disk or clear it from memory. Clearing the sketch from the screen doesn't erase it from disk, but if you make changes and don't save them first, clearing will erase the changes leaving the original sketch.

To clear the sketch press Alt C (remember that means to press C after holding down the Alt key). Then press Y to confirm that you want to start over.

When starting new sketches, or completely starting over on sketches in progress, Alt C clears the sketch from memory. You can use this if you ever need to start over.

Moving the Pointer

First, begin with a blank sketch pad. You can make sure there is nothing remaining on the screen from any previous entries by clearing it (Alt C, then Y).

Now get the "feel" of moving the pointer (Arrow) on the screen. The manual uses the keyboard for samples but you can use a mouse or joystick as well.

The 10-digit keypad has 9 tic-tac-toe arranged keys which are called the arrow positioning or just plain arrow keys. Your keyboard may also have a separate arrow key pad. Try pressing the arrow keys in any combination to see how the pointer moves on the screen. You can also hold them down for continuous movement.

Look at the scaling feature. Press D - change Drawing scale. DHP displays the feet per Grid which defaults to 2. This is about average for most homes to "fit" on the Sketch Pad. Notice the maximum horizontal (_____ 6.0) and vertical (_____ 75.2) foot lines you can fit on this sketch at this scaling factor. To adjust the scaling, use the left and right arrow keys to move the scale up and down.

Try moving the scale up to:

NEW=24

Notice you can represent a fairly large area on the sketch pad. Now move the scale back down to NEW=2 and press ENTER to accept the new scaling factor.

You can put a grid on the screen. Press G and a dotted grid appears. The grid is unnecessary for drawing the sketches. It is only provided as a reference tool for you. Sketches are always drawn properly to scale. The grid does help demonstrate pointer movement though.

Press some more of the arrow keys. See how the pointer moves exactly one grid (scale=2 feet) block? Now hold down one of the Shift keys while simultaneously pressing one of the arrow keys. Hold them both down. See how the arrow moves in small increments? This is how you can move the pointer in 1/10th fractions of a foot. This is called fine motion.

The Num Lock key can also be used as a toggle switch to turn fine motion on and off. Press Num Lock once, then try the arrow keys (on the numeric keypad) by themselves. Press it again, and try the arrow keys again. Using Num Lock means you don't have to press both the Shift key and arrow keys for fine motion. This is especially useful for computer users with a handicap.

Drawing with a Mouse

Using a mouse with DHP makes drawing easier and still allows you to use all features. The left mouse button is used just like the ENTER key. When the manual says to press ENTER, you can either press ENTER or the left button.

Try moving the sketch pad pointer by moving the mouse around. Try horizontal and vertical movement. To use fine motion, hold down the right button.

Drawing with a Joystick

Using a joystick with DHP makes drawing easier and still allows you to use all features. The bottom joystick button is used just like the ENTER key. When the manual says to press ENTER, you can either press ENTER or the bottom button.

Try moving the sketch pad pointer by moving the joystick lever around. Try horizontal and vertical movement. To use fine motion, hold down the bottom button while moving the joystick lever.

Drawing Tips

Before you try the first tutorial lesson review these basic tips for drawing sketches.

DHP allows you to draw and calculate up to four different positive areas and one negative area - for atriums and the like - which is automatically subtracted from the first are (F1). The default names of these area types on the first five function keys are as follows:

F1 Livable

F2 Garage

F3 Patio

F4 Storage

F5 Atrium (negative space) subtracts from F1 on Area calculations

You may rename these areas by pressing the Alt key and the corresponding function key at the same time. Once they are renamed, they are only renamed on the current sketch. (When you save sketches to disk, these new names are automatically saved and recalled when the sketch is loaded again.)

Before you begin your tutorial which takes you through some sketches, review these points:

- 1) Areas cannot be calculated until the figure is completely closed on all sides (use C - Close up an area).

- 2) All five area types can be drawn on the same screen. However, when using J - Join to near corner, which brings a different area to another, (e.g., butting a garage against the house), the COMMON WALL(S) MUST BE TRACED (DRAWN AGAIN), or the computer will not think the area is closed.

- 3) No area (except for the Atrium) should be drawn inside another. For instance, don't draw a garage, then draw a storage area inside the garage, otherwise the area calculation for the garage will be erroneous (Storage area would not automatically be subtracted from Garage area).

4) Areas should not cross over themselves, e.g., an area shaped like a figure 8 should be drawn as two separate closed areas joined at the corner.

5) Areas should be drawn in an outward order. In the above example, if you had a storage area inside the garage area which butted against the house, you would draw the sketch in this order:

A) Draw the house (F1-Livable, then Close it).

B) Draw the Storage area (F4-Butting against house, don't forget to retrace storage walls butting against house walls, then close it).

C) Draw the Garage area (F2-Butting against Storage area, don't forget to retrace Garage walls butting against Storage walls, then close it).

6) Because of the scaling factor, the dots on the screen (called pixels), can be difficult for retracing or joining the final stop with the end point. The J - Join to near corner command was developed just for this purpose. It will find you the closest corner and place the pointer EXACTLY on that point.

The arrow keys will then let you "walk" in a straight line from that point. For instance, if the garage wall started in exactly 20 feet from the corner of the house, you could join onto the corner, then press F2 and use the arrow keys to "walk" down 20 feet from that corner point. Once you get there, you could press ENTER to begin drawing that area "out" from the house. The corner created from the start point of the garage can then be referenced by the Join command later.

7) Before an area can be calculated by DHP, it must be completely enclosed using C - Close up an area. Many times you may get down to the last wall and find it doesn't exactly joint the beginning point. There are three things you can do:

A) Redraw the area

B) Redraw the last line

C) Let DHP automatically close the area for you.

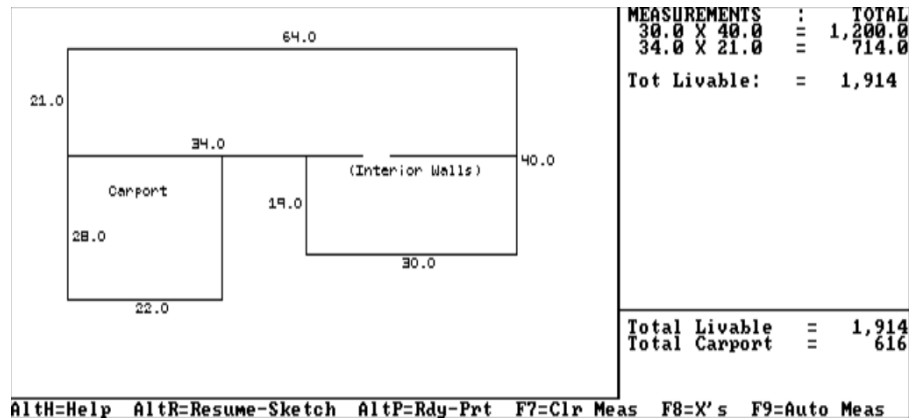
If you want DHP to automatically close the area, simply press ENTER to anchor the

wall, and press C. DHP will check to see which wall(s) would have to be lengthened or shortened in order to close the area. If only a vertical or horizontal wall needs adjusting, DHP will allow you to select only those walls for adjustment. If both a vertical and a horizontal wall need adjustment, DHP will allow you to select one of each to adjust.

(You can select these walls by using the arrow keys. Once you've selected the walls for adjustment, press ENTER. This combination allows you to selectively close up the area when measurement taking was difficult because of obstructions (e.g., trees, bushes, etc.).

Lesson One - Entering a Simple Sketch

Try entering this simple sketch (step-by-step instructions follow).



Clear the sketch pad (Alt C, then Y). Move the pointer down diagonally by pressing PgDn four times (or use your mouse or joystick to move about a half inch diagonally).

The whole Sketch Pad can be used for drawing. It's good practice to move the pointer towards the center to leave some margins around the sketch.

Now begin drawing your first area. Start with F1-Livable area by pressing F1.

Notice two pointers are now shown on the screen. This "split" pointer is helpful by providing a reference point (See Join Command in Lesson Two). The control corner tells you the location of the pointer, about 8.0 down and over.

Anchor the first point by pressing ENTER, the left mouse button or the bottom joystick button.

You have told DHP that you have verified you are drawing Livable area and you want to begin your sketch where you placed the pointer.

Press the right arrow key 32 times or you can hold the right arrow key down until the measurement approaches 64 feet. Or use the mouse or joystick to move the pointer to the right 64 feet (watch the control corner for exact measurements).

Notice the control corner displays the footage each time you move the pointer. This "gas-meter" effect helps you quickly target in on your line length. Since you are on 2 foot centers (scale),

Length=64.0

should now be displayed along with the horizontal and vertical displacement references (above it) from your previous start point. (If not, you didn't reset the scaling factor to NEW=2 with D - change Drawing scale).

Press ENTER to anchor the point and DHP will then know you're done drawing that line.

After pressing ENTER, DHP will "anchor" that line and display the dimension (the length) for it. DHP automatically displays dimensions near the center-bottom of horizontal lines, and the center-right on vertical lines. You may move the dimension anywhere you like using the arrow keys. You may eliminate the dimension if it is unnecessary for your drawing.

Put this dimension on top of the line you just drew. Press the Home key twice (moves dimension up and left 2 blocks).

Notice how you can position the dimension after each line. Holding down the Shift and arrow keys will move the dimensions in fine motion (1/10th blocks). Try precisely positioning the dimension this way. Get it as close to the center of line as you can.

DHP always displays the dimensions of area walls. You may position them wherever you desire. When you are done positioning them, you must anchor dimensions in place by pressing ENTER. Do this now.

[Note: If you didn't want to display a dimension on the sketch, simply press the space bar instead of ENTER and the dimension is cleared from the screen.]

DHP now displays the pointer at the end of the line so you can continue your sketch where you left off.

Draw the 40' Wall.

Press the down arrow key 20 times, moving the pointer to draw a vertical line downward (Length=40.0). Watch the control corner. Anchor the line (press ENTER). Then anchor the dimension where it displays (press ENTER).

Draw the 30' Wall.

Press the left arrow key 15 times, moving the pointer to draw a horizontal line to the left (Length=30.0).

Anchor the line, then anchor the dimension.

Draw the 19' Wall.

Press the up arrow key 10 times until "Length=19.0" is shown in the Control Corner. Notice IT DOESN'T stop on 19. That's because of the 2-foot drawing scale.

To back to "Length=18.0" then use fine motion to reach 19 feet. Press the Shift key and the up arrow key until you reach "Length=19.0". If you have a mouse or joystick, try fine motion by using the right mouse, or top joystick button.

Be sure the length is 19 feet (check the control corner) then anchor the line in place (press ENTER).

You may want to move the dimension "outside" the area before anchoring it. It doesn't hurt to leave dimensions inside of figures. However, if you are going to add interior walls or room names later, these dimensions may be visually in the way. It's good practice to plan ahead on placing dimensions because going back to move them when the sketch is nearly complete will take more time.

When you are done positioning the dimension, anchor it.

Draw the 36' Wall.

Press left arrow key 18 times, moving the pointer to draw a horizontal line 36 feet long. Anchor the wall and the dimension.

Draw the 20' Wall.

Move the cursor up, drawing until you reach Length=20.0 (press the up arrow key 10 times). Anchor the line and the dimension.

Close the Area.

Notice the ending point doesn't connect to the starting point. Often when you are measuring or designing a house, you may have made minor mistakes, or you may have been unable to accurately measure a wall because of an obstruction. You can go back and redraw, or you can tell DHP to close the area for you automatically.

Press C to Close up an area. DHP knows you want to close up the area you've just drawn. It now knows there has to be some adjustments made to some of the lines to close up that Area. DHP cannot calculate the area of a figure unless all sides of the figure add up properly to completely enclose the area.

DHP places its pointer on the closest line. It's asking you to select the lines you would like to adjust so it can close up the area.

Press the left or right arrow key. Notice the pointer goes to the next closest line. Keep pressing these arrow keys; one moves the pointer in a clockwise direction, the other moves it in a counterclockwise direction.

Position pointer on the 20' vertical wall. Press ENTER to tell DHP you want to adjust that wall's length.

DHP now knows that a horizontal wall also needs to be adjusted in order for this

particular area to be closed.

Press the left or right arrow key. DHP automatically rotates around all of the horizontal lines. It's allowing you to position on the horizontal line you want to adjust so the area can be closed.

Suppose you knew that because of a hedge, the 36' wall is incorrect. Place the pointer on the wall. Press ENTER to tell DHP you have picked that wall for adjustment.

DHP automatically shortens (or lengthens) the wall to the exact dimensions needed to close the area and then draws it for you.

The control corner should be displaying the Livable AREA CLOSED. Notice the 21.0 dimension could used cosmetics. The dimension should be moved left or right of the line. The Del (delete) key can be used to delete previous entries. The Ins (insert) key can be used to replace entries. To demonstrate:

Press the Del key 8 times. Each of the last eight steps are removed from the drawing in the order they were entered. To put each step back, press the Ins key 9 times.

The Del key is a way to go back and correct the placement of a dimension or length of a line, and the Ins key is a way to restore all your entries after that correction without having to redraw the area.

Fix the 21.0 dimension by moving it. First press Del until you are able to move the dimension (press Del until 21.0 disappears, then press Ins once and the dimension is attached to the pointer). Reposition the dimension outside the line and anchor it (press ENTER). Now, press Ins until all entries have been restored (DHP will beep when you've replaced everything). When Livable AREA CLOSED appears in the control corner, you will have returned to where you originally left off.

Calculate Square Footage

Once you close areas, you can have DHP automatically calculate the square footage. DHP calculates the square footage on all areas you've entered on the sketch. Since you've only entered Livable area so far, only the Total Livable will be displayed.

Press A for compute Area square feet. In an instant, DHP calculates the area BASED ON ACTUAL DIMENSIONS using a mathematical formula. Verify the total by manually calculating them on a separate sheet of paper using the "square-off" method.

(Total Livable=1,914).

Now that you have manually verified the total, let DHP show you it can also do the manual "square-off" method for you.

Press M for Measurement calculation. The Help Text disappears, replaced by:

MEASUREMENTS TOTAL

You can recall the Help Text - press Alt and H. Pressing these keys will display the Help Text starting on the page pertaining to the measurements pad. You may want to review these pages before pressing ENTER to return to the measurements pad.

[Note: The measurements on the Help Text has nothing to do with the current sketch, it just shows a sample of measurement entry.]

If you want DHP to automatically show the measurements for the current sketch, press F9, a choice on the Status Line.

DHP displays the measurements as if it had used the "square-off" method. Pressing the F9 key will replace the measurement pad. Any prior entries on it would have been erased.

Try these other options from the status line.

Press F8 and notice that a column of X-s automatically appear for fast coding entry when you manually enter measurements.

Press F7 which clears the measurement pad so you can enter dimensions from scratch. Enter some now using these figures. Type:

19 x 30 then press ENTER

DHP automatically extends measurements for you. Notice also the arrow keys control the positioning of the cursor on the measurement pad. Now position the cursor at the start of the second line and type:

21 x 64 then press ENTER

Total these two lines by typing:

Total Livable: then press ENTER

Don't forget the colon (:), DHP recognizes (:) as a total command. If it sees it anywhere on a measurement line, DHP totals all figures above it.

The measurement total matches DHP's calculated total in the control corner. Now move down a couple of lines (press ENTER). Type this:

- 12.5 x 13.4 x 14.5 x 16 then press ENTER

DHP only calculates up to the 15th character position of any measurement line (you can reference it by the ":" in the header at the top of the measurement pad). Any dimensions entered after the position are ignored. However, you may enter text all the way to the end of the line for comments.

Press ENTER to go to the next line and type:

Grand total: then press ENTER

Don't forget (:). Move the cursor to the line containing "Total Livable:" using the up arrow key.

Replace "Total Livable:" with "Total Livable" by using the right arrow key to the : and type > Press ENTER.

Notice what happens. Any line containing a ">" subtotals, and any line containing a ":" grand totals all of the subtotals above it.

Press F9 to automatically measure the sketch. DHP clears the measurement pad and enters its own "square-off" measurements based on the area in F1 (Livable) and F5 (negative Livable with Atrium).

If the F1 (Livable) area contains more than 15 "square-off" measurement lines, the remaining square footage is multiplied by 1 and shown on the 15th line. The measurement pad allows 18 lines of entry by 25 characters (15 characters for dimensions.)

In addition, F5 (Atrium) area computes as negative area, and is subtracted from the F1 (Livable) area automatically. When you select F9 to Auto Measure, the negative "square-off" measurements of the atrium areas will be displayed as well.

Printing a Sketch

Assuming you have selected your printer and configuration properly (see Chapter Two, Hardware Requirements and Entering DHP System and Chapter Three, Printing Sketches) you are ready to print the sketch you just drew.

To prepare the sketch for printing, press Alt P which clears the Status Line. If you wish to clear the area totals in the control corner press P again. If you have selected a printer configuration which prints more than one sketch per page, you may press the E (Eject Page) key before pressing the Print Screen key. This will eject the page after printing the sketch. If your printer is on, on-line and loaded with paper, press Shift and PrtSc (print screen).

After the sketch prints, you may press any key to return to your drawing.

Now save the sketch you have done so far to disk. First you need to exit the measurement pad and return to the sketch pad.

Press Alt R for Resume Sketch.

Press S to Save sketch to disk and type: **SK1**

The sketch is saved on the default disk (the floppy or hard disk depending on which you were on when entering the DHP program). Notice the screen doesn't clear - you merely saved the sketch in a file on the disk.

Clear the sketch from the screen (Alt C, then Y).

Go on to Lesson Two. You can take a break and come back later if you want. The next lesson teaches you how to add other areas. You will add to SK1 and create a new sketch called SK2.

To return to the operating system, press Alt Q, then Y and ENTER.

Lesson Two: Adding Other Areas

In this lesson, you will add a carport, interior walls and room names to the sketch you

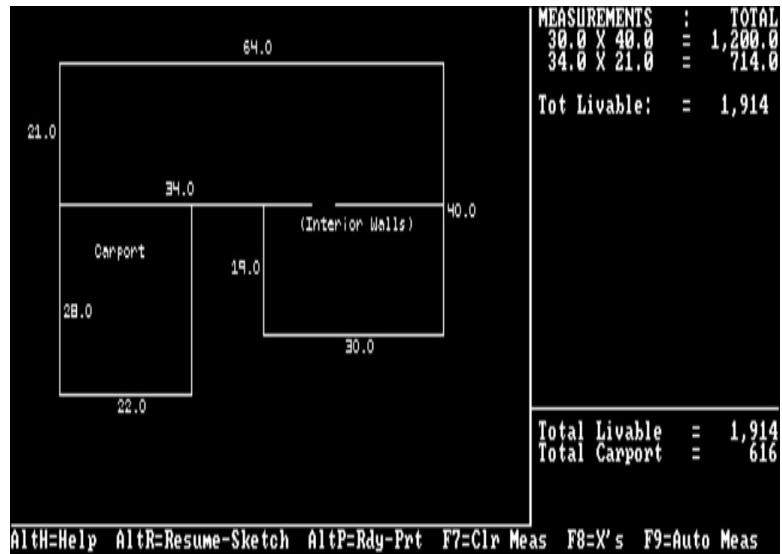
drew in Lesson One.

First, run DHP or clear your sketch pad (Alt C, then Y). Then, load the sketch used in Lesson One.

Press L, then enter SK1 for the filename. [Note: if SK1 is saved on a floppy disk and you are working on the hard disk, you should enter A:SK1.]

Immediately the sketch is loaded in from disk and displayed. If you had typed the name in wrong, had the wrong data disk, or entered a filename which isn't a sketch, DHP would have told you "This is not a sketch."

The sketch you draw in this lesson will look like this:



Before adding the carport, move the dimension 34.0 above the line so it doesn't get in the way of your carport drawing.

Press Del until the dimension 34.0 disappears then press the INS key once so that it can be moved by the arrow keys. Move 34.0 above the line and anchor it. Press Ins until all subsequent entries have been restored (Livable AREA CLOSED should appear in control corner and your computer beeps).

Now draw a carport area. Place the pointer near the corner of the building drawn. The pointer should be moving without any lines being drawn. If not, you're still in a drawing mode. Press the Ins until the Livable area is closed.

Move the pointer near the lower left corner of the building.

Before drawing the carport, re-label F2=Garage to F2=Carport. Hold down the Alt key and press F2. Then type:

Carport and press ENTER

DHP changes the area label on the status line. Pressing Alt and any function key is how you re-label areas.

Be sure the pointer is near the lower left corner of the building still. Then, press J to Join smack onto the nearest corner.

Press F2 begin drawing Carport Area. Anchor the first point (press ENTER).

Draw a vertical line down 28.0 feet (watch the control corner). Anchor the line and the dimension.

Draw the next horizontal line to the right 22.0 feet. Anchor line and dimension.

Draw the next vertical line up towards the house (28.0 feet), BUT DON'T ANCHOR IT YET.

Butted Walls

This carport happens to have even measurements and would intersect exactly onto the house (Livable) wall. Suppose it didn't, or that you wanted to make sure the line exactly butted up against the house wall. Before anchoring the third line (length=28.0), do this:

- 1) Move the pointer near the lower left corner (don't worry about the line going on an angle).
- 2) Press J to Join onto that corner, you are sure you are exactly on the house wall.
- 3) Press the right arrow key (approximately 11 times, until line straightens). DHP will "walk" right down that house wall so you can be absolutely sure you are butted against the house.
- 4) Press ENTER to anchor the line. Since this dimension is exactly the

same dimension as the opposite wall, remove it by pressing the space bar.

Closing Areas Butted Against Another Area

When you have connected the sides of an area against another, you are still required to draw the walls (lines) where the two areas connect, even if it appears you are drawing over an existing line.

Continue with Lesson Two. So far, you have drawn three sides of the carport. You still must draw the fourth side which is connected to the house so that DHP can measure the length of that line.

Press C to close area. DHP beeps, telling you it "cannot auto close area." In this case, it's easy to tell what is missing - the last line which is common to the house wall must be completed.

Sometimes you may get into a situation where you want to know what's needed to close up an area. DHP has a test for closure feature to help you out. Try it in this situation.

Press T to test for closure. In the control corner, DHP displays the horizontal and vertical corrections needed to finish enclosing this area. Draw the last line.

Press the left arrow key and move pointer to near the lower left corner of the building. Then press J to join the nearest corner and anchor the line (press ENTER). Remove the dimension label by pressing the space bar.

Now you are ready to close the carport. Press C and check the control corner for this message:

Carport AREA CLOSED

Now you may figure the area - press A. DHP recalculates all areas instantly and displays the totals in the control corner.

Labelling the Sketch

Using the naming feature, you can label the Carport area right on the sketch. Press N and type:

Carport then press ENTER

The label "Carport" displays on the sketch pad at the last position you left the pointer.

In the future, you may want to position the pointer on the screen before entering a name even though you can freely move the name label afterwards.

Position the name the same way you move and place dimensions. (arrow keys, mouse or joystick). Press ENTER to anchor the name inside the carport area.

Drawing Interior Walls

Entering interior walls is simply drawing lines anywhere on the screen. They don't affect square footage but they do add clarity to your sketch.

Use command I to start the interior wall feature. When you're done with a segment of the interior wall (straight line), press ENTER to anchor it at each point. When you are completely done with an interior wall, press the space bar to stop drawing.

Refer to the sample sketch at the beginning of this lesson and try to duplicate it.

Move the pointer to a position where you would like to start the interior wall. Remember, you can use the join command to position on a corner.

Press I to start interior wall mode. Position the pointer and anchor the point by pressing ENTER.

Draw the interior wall and when finished press ENTER to anchor it.

If the same wall continues around a corner, DHP lets you draw the next wall directly from the last interior wall's end point. If you choose to start at a different point, press the space bar to stop drawing.

Practice putting in a few interior walls - some single lines and some walls with corners. When you're done, anchor the last point and press the space bar to stop interior wall mode.

Now try putting some names inside the building. Use the alternate font feature to see how it works. Select the naming command by pressing N. Now, press F5 and notice the control corner - it tells you which size font you are using. Press F5 again to return to the other font. When the small font is in use, type the room name and press ENTER

to pick up the name you typed. Then anchor it on your sketch.

Remember, if you make a mistake, use the Del key to back up to that mistake, correct it, then use the Ins key to restore all entries.

When you are done, Press R to redraw your sketch which "freshens" the screen, replacing any lines that may have been inadvertently overlaid while you were working. You can redraw your sketch at anytime, even while in progress.

Now you have seen most of DHP's options. You may use each option in the way you need to draw your sketch. Print your second sketch, but first measure it. (Press M for measure options, F9 to auto measure, Alt P to prepare for printing and Shift PrtSc to print.) When the sketch is printed, press any key then Alt R to resume sketching.

Save your sketch to disk under the filename SK2. (Press S, type: **SK2** and press ENTER).

Changing Scale While Sketching

Suppose you finish most of a sketch and find that you want it drawn in another scale. DHP lets you do this and you can try it with SK2.

Press D to reset the drawing scale. Use the right arrow key to move the scale (in control corner) so that it displays this:

NEW=3

Press ENTER to accept the new scale. Notice the sketch is automatically drawn again at that scale. When you shrink a sketch, it may need to be moved on the sketch pad and dimensions and labels may need to be repositioned.

Moving the Sketch

You can "pickup" the sketch and move it to another area on the pad if necessary. In this case, when the size of the sketch changed, the dimension on the left overlaid the line, and there is no room to move the dimension over.

It is easiest to move sketches from edge to edge (if moving up or down and side to side). Move this sketch diagonally from corner to corner. Place the pointer on the lower right corner of the drawing.

The press Alt M, move the pointer toward the lower right corner of the screen about an inch and press ENTER. DHP tells you if you exceed the limits of the pad so you can reposition the sketch. The sketch should be properly positioned.

Now you can reposition dimensions and labels. Simply use the Del key to go back and reposition them. After you reposition each dimension, remember to anchor it by pressing ENTER, the left mouse button or the bottom joystick button.

Use the Ins key to replace what you deleted. Obviously, if it's a detailed sketch, the Del and Ins combinations could take a while. That is why it's important to plan ahead on the drawing scale and properly positioning the dimensions as you go along so they won't be "in the way" as the sketch progresses. When you draw a floorplan, you should keep in mind you need to know the maximum length and width to help you select the proper scaling size before drawing the sketch.

Continue with this lesson by exploring the scale feature. Press D and set the drawing scale to this:

NEW=1

Your computer beeps at you. You can't do it because DHP will not let you enter a scale that would result in the sketch exceeding the boundaries of the sketch pad. Set the scale at:

NEW=2

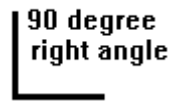
The sketch should return to the original size you used. You need not save the sketch again because you save it before beginning of the portion on scaling. If you do save it to SKETCH2 and it is not exactly as it was before, the first sketch will be lost, replaced with the one shown on the screen.

At this point, you can clear the screen (Alt C, then Y) and prepare for the next lesson.

To return to the operating system, press Alt Q, then Y and ENTER.

Lesson Three: Sketching Odd Angles

Regular building walls are horizontal, vertical or at odd angles.



horizontal



For definition purposes, odd angles are any angles other than those shown above. DHP will default to 90 degree corners and diagonal lines of 45 degrees under regular sketching mode (Angles "off"). Odd angles may be drawn with continuous sketching mode (Angles "on").

Make sure your sketch pad is clear (press Alt C, then Y).

DHP defaults to the normal sketching mode which lets you draw only 45 or 90 degree angles. This way you can be certain each corner is perfectly drawn.

Experiment with angle sketching. Move the pointer toward the center of the screen and press F1 to select an area for drawing.

Press ENTER to anchor the starting point for drawing the wall. Press PgDn several times or move the pointer toward the lower right corner.

That is a perfect 45 degree angle. Remove the line by returning to the starting point (press the Home key).

Now draw a horizontal line with the right arrow key. Pull that line to a 45 degree angle with the down arrow key.

Notice at one point the pointer will be closer to a 45 degree angle than a straight line. DHP will then display it at 45 degrees diagonally). But those are the only two choices.

Suppose you have a sketch for which you want to draw some odd angles. DHP has a toggle switch to allow you to change to odd angles mode - just press Alt A. You can toggle odd angles "on" and "off" during the process of drawing in area.

Although DHP does not display the degrees of the angle, it does display the distance horizontally and vertically from the last reference point which you can use as a guide when entering odd angles. DHP automatically calculates square footage on odd angles. When closing a figure with odd angles, DHP will adjust the line lengths of horizontal or vertical lines only, not lines drawn at odd angles.

Try drawing some odd angles. Turn angles on by pressing Alt A. Verify this by looking at the control corner.

You should still be in drawing mode with one point anchored. Move the pointer around on the screen. Any angle can be represented on the sketch.

Now draw an area with odd angles - maybe a pentagonal shaped building. Use the join command (press J near that point) to connect the last line with the start point and anchor the point (press ENTER).

Close the area (press C) and let DHP figure the area for you (press A). To see the method used to figure area, use the measurement calculation feature (press M, then F9). Imagine figuring the area manually.

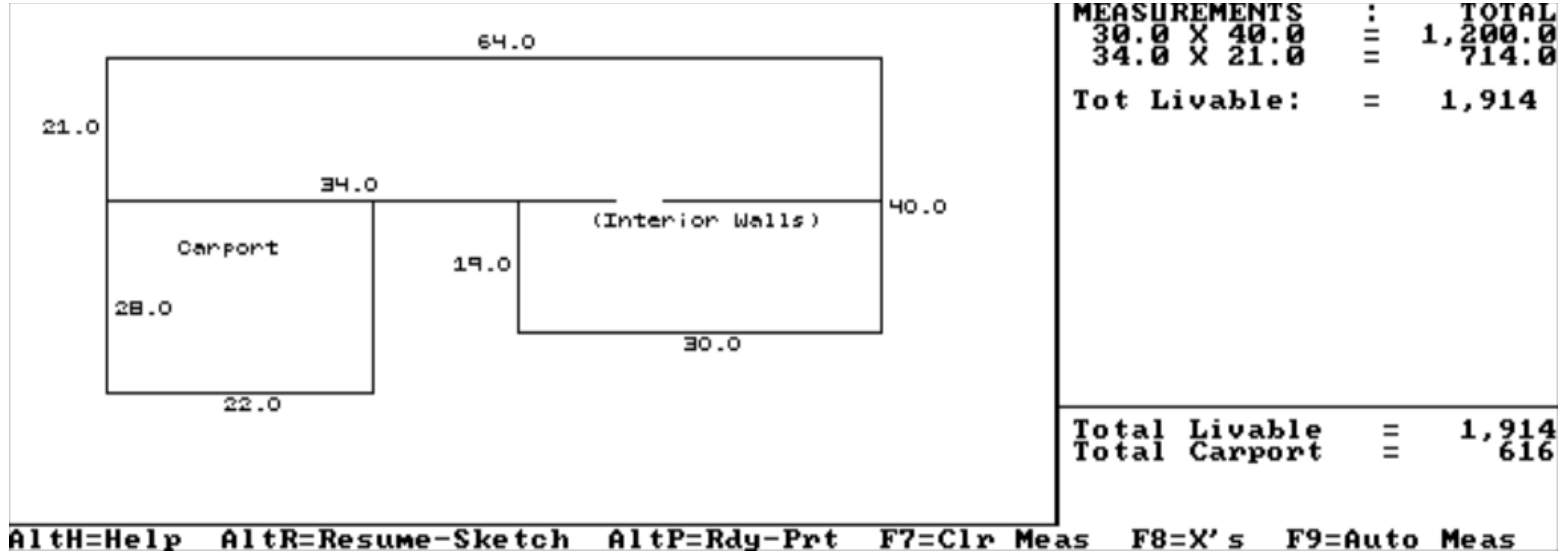
Return to the sketch by pressing Alt R. When you are done, clear the sketch pad (Alt C, then Y) and turn angles off (Alt A).

To return to the operating system, press Alt Q, then Y and ENTER.

Lesson Four: A complex Sketch

You may want to try drawing a detailed sketch. At first this may seem difficult, but with practice you will be surprised how simple DHP makes your sketches.

If you already have an idea for a complex sketch, you should attempt to draw that now, before trying to do a "live" sketch. Otherwise, we challenge you to try to duplicate the sample file called SKETCH included on your Dream House Professional program disk. If you get stuck, use the Insert and Delete keys to discover the techniques used in creating this complex drawing. It looks like this:



To return to the operating system, press Alt Q, then Y and ENTER.

DHP Command Summary

Arrow keys = move pointer

Shift key + Arrow keys

Right mouse button

Top joystick button = fine motion pointer movement (1/10ths)

ENTER key

left mouse button

bottom joystick button = accepts position (anchor)

F1-F5 Start drawing an area

A compute Area square footage (after the area has been closed)

C Close up an area

D change Drawing scale

E Eject page after next print screen

F list of Files on disk

G overlay scaling Grid

H display Help Text in sketch mode

I start Interior wall

J Join to nearest corner

- L Load sketch from disk (DOS configuration)
- M Measurement calculation mode
- N add room Names or titles or descriptive comments on sketch
- R Redraw screen (fixup, use anytime to redraw screen up to last point)
- S Save sketch to disk (DOS configuration)
- T Test or area closure (will verify if an area is closed and displays the horizontal and vertical position required to close that area in the Control Corner)

Ins restores deleted entry

Shift + PrtSc Print sketch using printer/configuration

The display screen is divided into four areas:

Sketch Pad Drawing area for sketches.

Status Line Bottom line displaying the conditional options.

Control Corner Displays relative control information pertaining to the sketch.

Measurement Pad/ Help Text Area	When in sketching mode, displays Help Text. When in measurement pad mode, lets you enter measurements and text. Pressing Alt H in measurement pad mode will bring up Help Text starting on page pertaining to the Measurement Pad.
------------------------------------	---

Approximate Maximums:

Max Walls 70 (includes dimensions) (If exceeded, DHP Prompts:
Max Names + Interior Walls 40 "area too complex").

Other Suggestions, Tips, Hints

The only way to master all the features of DHP is to practice a variety of sketches and experiment. Test users have found the following while experimenting.

- . When drawing an area, anticipate dimension positions so other areas won't draw over the top of them. (If they do you can use the Del key to go back, reposition the dimension, then Ins to restore back to the end.)
- . Often, when you are drawing over something else on the screen, you may clear existing walls or leave scattered marks. The R - Redraw command can be used anytime and will completely clear the screen then redraw the entire sketch instantly. This will clean up scattered markings, and restore walls that have been cleared from the screen.
- . The mistake most often made by beginners is drawing walls which butt or are attached to a different area wall. For example, if you draw three sides of a garage up against a house, it's not finished! THAT LAST (FOURTH) WALL MUST BE DRAWN!

- . Use the J - Join command to help you when drawing walls butting against another area. The join command will attach the pointer to the nearest corner. As you are drawing along and are getting close to another corner, you can attach directly onto it, again using join.

- . The J - Join command can be used anytime and will help you quickly position the pointer on corner points. It's useful in a variety of purposes. Here are just a few:

Positioning the start of an area or wall exactly 14.3 feet from a corner. (Use join to put pointer on corner, press the area or interior wall you want to start. Move pointer "in" from that corner to 14.3 feet. Press ENTER to anchor start point.)

Drawing the last line to close up an area. Say you have just finished drawing that last wall, you are close to the start point and you want that last wall to be the EXACT length required to "meet" the start point. Simply use the join command before anchoring that last wall.

Areas butting against another. Lots of times when you're drawing an area butting against another - and you're drawing over the walls of the other area - you can use the join command to help you quickly draw that common wall by joining to the common corners.

- . GETTING LOST? If you lose track of where you are or what's going on, simply use the Del key and go back a few steps to a familiar reference point. (Remember: The Del key will delete your entries (steps) in reverse order; the Ins key will restore your entries (steps) in sequential order.)

- . You can print the sketch directly on graph or plain paper. Some users prefer to print on plain paper, then use a copier to photocopy onto a form (you may use reduction copiers to reduce the sketch). If you are using a dot matrix printer, the small sketch printer configuration can be selected (before going into DHP) to print a smaller sketch.

- . Multiple (but separate) areas - like a guest house - can be entered on one sketch, or on two different sketches.

- . Areas like patios can be drawn and calculated on an unused area of the sketch pad then removed. This will allow you to access the calculation abilities of DHP, yet represent the area by using interior walls or dashed lines.

. Arrow and indicators can be created using interior walls and keyboard characters.
For example:

North ----->>

. Use icons (Alt I) to represent doors, sinks, stoves, tubs, toilets and other features of a building. You choose the icon and position it where needed. Then you can add interior wall lines to it to add detail. For example, add a box around two sinks to make a double sink, add a line in front of a sink to create a vanity in a bathroom.

. To use DHP as a general art or CAD program it may be useful to know that the entire measurement side of the screen can be cleared using the following key sequence: Press M, Press F7, Press the up arrow until the cursor is on the MEASUREMENTS: TOTAL line, Press the ESC key, Press ALT P Press P. Press Shift Print Sc to print your artwork.

Chapter 5: Trouble Shooting

When you have trouble with your computer, it is not always easy to determine the problem. You may occasionally experience hardware difficulties, program errors or data problems. This section covers the basics of trouble shooting including how to define the problem and recover from it, but more importantly how to avoid trouble.

Error Messages

DHP is written in the BASIC programming language. A complete list of BASIC errors can be found in a BASIC manual, but the common errors are listed here.

#	description	solution
61	disk full	use Alt K to erase old sketch files or begin saving files to another disk
68	device not available	check printer cable connections - reset printer and computer
70	disk write protect	do not use write protect tabs on DHP program or data disks
71	disk not ready	verify that disk is inserted correctly and the door is closed properly
72	disk media error	reinsert floppy disk and close drive door properly

DHP has its own list of error messages as well. Normally, the message explains the problem which suggests a solution. For example, when using the move command,

this error message may appear:

Sketch can't be moved any farther in this direction

It means that you have moved the sketch as far as you can in the current drawing scale. To make additional room use the D command to change the drawing scale.

Recovering from Errors

When you get an error message, your ability to recover from it is based on what you do next. Always stop immediately to make note of the error and retrace the steps that led up to the error. Write down the option you are using, the last few entries you made and any other facts such as changing data disks or a power failure.

If you recognize the error and have an idea of what to do, correct the problem. Then, try to repeat the option you were working with when the error occurred. Most times, this is all you need to do to recover from the error.

Avoiding Errors

Most users can work with their computer and rarely experience an error. The important part to avoiding errors is to understand both the hardware and software you use. Be sure to study the user manuals provided with your computer until you are comfortable with its operation.

Avoiding little errors may be impossible, but they seem even more insignificant if you can quickly diagnose the problem and fix it. Avoiding catastrophic errors requires common sense and foresight - particularly making backup copies of your data.

Backing Up Data

One of the most important parts of using a computer includes taking the time to copy every important piece of software onto a separate medium (floppy disks or magnetic tape) and store it in a safe place. There is no substitute for this simple procedure which should be done regularly.

Any number of problems could destroy either program or data files including hardware malfunction, power failure, fire or other disaster. A current, complete backup

of your important files can save your system.

There are several ways to make backups of your files. Generally, users copy files to a floppy disk using either COPY or BACKUP (explained in your DOS manual).

The method and schedule used to backup files are up to you. It is best to establish a regular schedule for a particular backup session, such as daily for current files. A full backup might be done on a monthly basis to save all work done for a four week period. Individual backups can be done before and after an intense amount of work that you would not want to lose.

Full backups should be divided into groups by drive and by subdirectory.

Many users have found that keeping two sets of backup files is best when used on a rotating basis. That is, use set one on odd numbered days and set two on even numbered days. This way, if you should ever backup bad data onto your disks and then need to restore the data, you would have another recent backup to be instead.

Copying Between Disks

You may find that you need to move a sketch file from one data disk to another. You may do this by using the DOS copy command on this format:

```
COPY a:filename b:filename
```

This copies a file from drive A to drive B. Then you can erase the first file with this command.

```
DEL a:filename
```

When to Seek Help from Computer Easy

There may be times when you cannot determine the cause of a particular problem and you need help. This is the time to call your dealer or Computer Easy for support. Before you place the call, make note of this information:

- . Your company name and location
- . The program and version you are using

- . The exact error message or problem
- . The sequence of steps taken before the error
- . Your exact actions since the error occurred

With this information, it is easiest to get the support you need. Also, it may be necessary for you to be able to access your computer while you are talking to support, so be sure your phone is close to the computer.

Mouse Installation - Appendix A

If you use a mouse with DHP, you must have the proper hardware and the correct driver program loaded. Much of the information you need about your mouse will be in your mouse manual or your hardware dealer may complete the installation for you.

For hard disk users follow these steps:

1. Copy mouse driver program onto your DHP disk or the root directory of your hard disk from the floppy disk provided with your mouse.
2. Alter your AUTOEXEC.BAT file on the root directory of your hard disk to include the loading of the mouse driver. (example - add MOUSE to your AUTOEXEC.BAT file.)

You may prefer to only load your mouse when you load the DHP program. If this is the case you might add MOUSE to a DHP.BAT batch file. It would be a good idea to include the printer driver and the mouse in such a batch file.

```
C:>COPY CON:DHPRO.BAT
CD\
MOUSE
CD\DHP
DHP
(press CTRL-Z (F6) and ENTER)
```

Other Mouse Brands

If you have another type of mouse, you must find the name of the mouse driver program (consult the mouse manual). Then, you must copy that file to your Dream House disk, something like this:

```
A>COPY B:MOUSE.DRV C:\
```

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