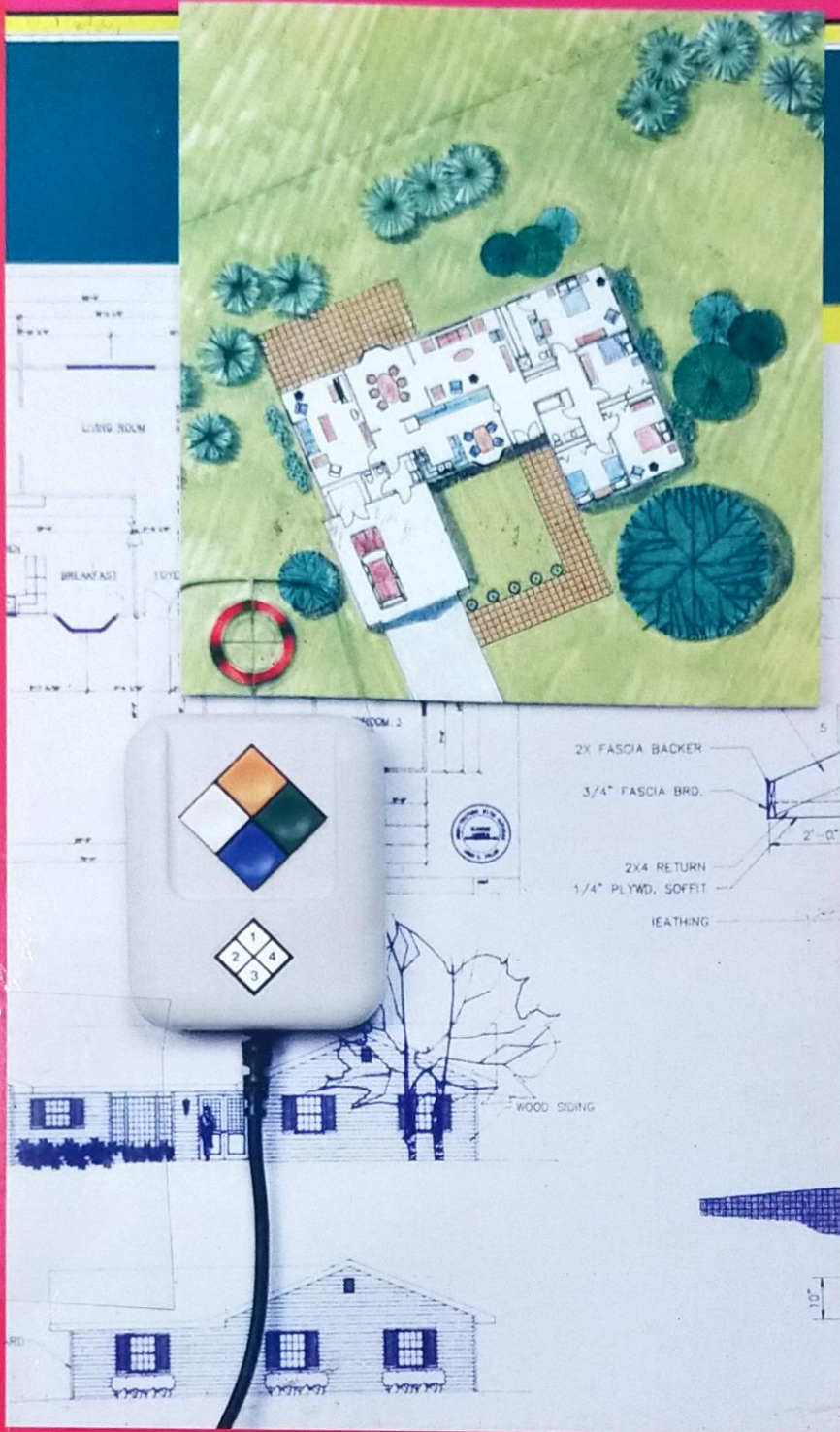


By: James E. Fuller

AutoCAD

FOR ARCHITECTURE



AutoCAD for Architecture®

for AutoCAD® Release 10, 11, and 12

James E. Fuller



GLENCOE

McGraw-Hill

New York, New York
Columbus, Ohio
Mission Hills, California
Peoria, Illinois

CONTENTS

ACKNOWLEDGEMENTS	xlv
INTRODUCTION.....	xv

SECTION ONE DRAWING FLOOR PLANS

SESSION ONE DRAWING PLAN WALLS	1-1
SETTING THE DRAWING PARAMETERS	1-2
Step One Beginning a New Drawing.....	1-2
DRAWING THE PERIMETER.....	1-4
Step Two Drawing the Plan Perimeter (Walls 1 Through 10)	1-4
CONSTRUCTING THE INTERIOR WALLS.....	1-9
Step Three Constructing Wall (11)	1-9
Step Four Constructing Wall (12)	1-10
Step Five Constructing Wall (13)	1-11
Step Six Constructing Wall (14)	1-13
Step Seven Constructing Wall (19)	1-13
Step Eight Constructing Wall (15)	1-14
Step Nine Constructing Wall (16)	1-14
Step Ten Constructing Wall (17)	1-14
Step Eleven Constructing Wall (18)	1-16
Step Twelve Constructing Walls (20) and (31)	1-17
Step Thirteen Constructing Wall (22)	1-19
Step Fourteen Constructing Walls (23) and (21)	1-21
Step Fifteen Constructing Wall (30)	1-22
Step Sixteen Constructing Walls (24), (26), and (32)	1-23
Step Seventeen Constructing Wall (25)	1-24
Step Eighteen Creating an Intersection at Walls (6) and (25)	1-24
Step Nineteen Constructing Wall (27)	1-24
Step Twenty Constructing Wall (29)	1-25
Step Twenty One Constructing Wall (33)	1-28
TRIMMING INTERSECTIONS.....	1-30
Trimming A "T" Intersection.....	1-31
Trimming A "L" Intersection.....	1-32

Trimming A "+" Intersection	1-33
Step 22 Trimming the Wall Intersections.....	1-33
LOADING THE REFERENCE FUNCTION AUTOMATICALLY	1-34
USING DLINE.LSP (For Release 11 Users)	1-35
Using Dline to Construct a Floor Plan.....	1-35
Dline Options.....	1-39
SUMMARY.....	1-41
QUESTIONS	1-42
PROBLEMS	1-44
 SESSION TWO PLACING DOORS AND WINDOWS IN THE PLAN.....	2-1
INSERTING WINDOWS	2-4
Locating Window Positions	2-4
Placing Multiple Windows	2-7
Trimming The wall.....	2-8
ALTERNATE WINDOW PLACEMENT METHODS	2-9
CONSTRUCTING A WINDOW FOR INSERTION	2-12
INSERTING DOORS.....	2-13
Using the Reference Function	2-13
Alternate Door Placement Methods	2-15
INSERTING DOORS AND WINDOWS IN YOUR DRAWING	2-15
Step One Getting Started	2-16
Step Two Placing the First Window.....	2-17
Step Three Completing the Wall	2-17
Step Four Inserting the First Door	2-18
Step Five Inserting the Door Icon.....	2-20
Step Six Completing the Doors and Windows	2-21
CONSTRUCTING THE DOOR SCHEDULE	2-22

Step 7 Constructing the Extract File	2-22
USING BLOCKS WITH ATTRIBUTES.....	2-22
Defining Tags.....	2-23
CREATING THE BLOCKS.....	2-23
Extracting Attributes From the Drawing.....	2-24
SUMMARY.....	2-25
QUESTIONS	2-25
PROBLEMS	2-27
SESSION THREE CREATING AND PLACING LIBRARY SYMBOLS	3-1
CREATING SYMBOLS.....	3-2
Detail and Layering.....	3-2
Color.....	3-4
Linetypes.....	3-5
Orientation Angle.....	3-6
Scale	3-8
LIBRARY DRAWING MANAGEMENT.....	3-9
Placing the Base Point	3-10
BUILDING A SYMBOL LIBRARY	3-11
Creating Your Own Symbols	3-11
Editing Symbols	3-12
ADDING CLOSET, BATH, AND DITCHEN ITEMS	3-12
INSERTING SYMBOLS IN YOUR DRAWING.....	3-14
PLOTTING INSTRUCTIONS	3-16
SUMMARY.....	3-18

QUESTIONS	3-20
PROBLEMS	3-22
SESSION FOUR DIMENSIONING AND TITLING	4-1
DIMENSIONING BASICS	4-2
Components of Dimensioning	4-2
Preparing for Dimensioning	4-3
DIMENSIONING YOUR PLAN	4-9
Step One Preparing to Dimension	4-9
Step Two Placing the First Dimension Line	4-10
Step Three Placing a Second Dimension Line	4-11
Step Four Placing the Remaining Rear Wall Dimensions	4-13
Step Five Placing Window and Door Dimensions	4-13
PLACING WALL THICKNESS TEXT	4-15
Step Six Creating a Text Style	4-15
Step Seven Placing the Wall Thickness Dimension	4-15
Step Eight Copying the Dimension Text	4-16
CROSSING EXTENSION AND DIMENSION LINES	4-16
Step Nine Breaking Extension Lines	4-17
Step Ten Placing the Remaining External Dimensions	4-18
CONSTRUCTING INTERNAL DIMENSIONS	4-19
Step Eleven Placing the First Internal Dimension String	4-19
Step Twelve Placing Internal Dimensions	4-19
TITLING YOUR FLOOR PLAN	4-20
Step Thirteen Creating a Room Name Style	4-20
SUMMARY	4-21
PLOTTING INSTRUCTIONS	4-21

QUESTIONS	4-23
-----------------	------

PROBLEMS	4-23
----------------	------

SECTION TWO DRAWING BUILDING AND WALL SECTIONS

SESSION FIVE DRAWING THE BUILDING SECTION

SETTING UP THE DRAWING	5-3
------------------------------	-----

COMPONENT METHODOLOGY	5-4
-----------------------------	-----

DRAWING THE COMPONENTS	5-5
------------------------------	-----

Step One Drawing the Footing.....	5-5
--------------------------------------	-----

Step Two Drawing the Concrete Block	5-6
--	-----

Step Three Drawing the Stud Wall.....	5-7
--	-----

Step Four Drawing the Door Frames and the 2x4	5-8
--	-----

CONSTRUCTING THE SECTION	5-10
--------------------------------	------

Step Five Inserting the Footing.....	5-10
---	------

Step Six Placing the Concrete Block	5-11
--	------

Step Seven Drawing the Floor Slab.....	5-12
---	------

Step Eight Placing the Stud Wall.....	5-14
--	------

Step Nine Setting Up a Mirror Reference Line	5-15
---	------

DRAWING THE ROOF COMPONENTS	5-16
-----------------------------------	------

Step Ten Drawing the Roof Joist	5-16
--	------

Step Eleven Extending the Floor Slab	5-17
---	------

Step Twelve Constructing the Ceiling Joist	5-18
---	------

Step Thirteen Constructing the Overhang.....	5-19
---	------

Step Fourteen Constructing the Hidden Lines.....	5-21
---	------

Step Fifteen Mirroring the Section	5-23
---	------

Step Sixteen Constructing the Web Members	5-24
--	------

Step Seventeen Inserting the Stud Wall.....	5-28
--	------

Step Eighteen Inserting the Doorways.....	5-29
--	------

Step Nineteen Placing the Wall Edge	5-30
--	------

Step Twenty Inserting the Cabinets	5-31
---	------

SUMMARY	5-32
QUESTIONS	5-33
PROBLEMS	5-34
SESSION SIX CONSTRUCTING THE WALL SECTION	6-1
CREATING THE WALL SECTIONS	6-3
Splitting the Building Section	6-3
Step One Drawing a "Cut" Line	6-3
Step Two Breaking the Section Lines	6-3
PLACING THE SPLIT-AWAY SECTION	6-6
Step Three Copying the Wall Section Components	6-6
Step Four Scaling the Wall Section	6-6
CONSTRUCTING THE GROUND LINES	6-8
Step Five Using the Sketch Command	6-8
Step Six Drawing the Straight Ground Line	6-8
CONSTRUCTING THE HATCHES	6-10
Step Seven Setting the Hatch Layer	6-10
Step Eight Constructing a Hatch Boundary	6-10
Step Nine Placing the Earth Hatch	6-11
Step Ten Placing the Crushed Stone Hatch	6-12
PLACING A "QUICK HATCH"	6-13
Step Eleven Inserting the "Quick Hatch" Component	6-13
Step Twelve Arraying the "Quick Hatch" Component	6-14
Step Thirteen Placing the Ceiling Insulation Hatch	6-16
Step Fourteen Completing the Trim Details	6-17
PLACING THE DIMENSIONS AND NOTES	6-18
Step Fifteen Setting a Layer for Notes and Dimensions	6-19
Step Sixteen Creating a Text Style	6-19
Step Seventeen Placing Dimension Leaders and Notes	6-20

Step Eighteen Placing the Titles.....	6-21
CREATING THE DOOR SCHEDULE	6-21
Step Nineteen Using "ASCTEXT.LSP".....	6-21
Step Twenty Constructing Schedule Box Lines.....	6-23
Step Twenty-One Adding Notations.....	6-24
PLOTTING INSTRUCTIONS.....	6-26
SUMMARY.....	6-28
QUESTIONS.....	6-29
PROBLEMS.....	6-30

SECTION THREE DRAWING BUILDING ELEVATIONS

SESSION SEVEN DRAWING BUILDING ELEVATIONS	7-1
CREATING BUILDING ELEVATIONS	7-2
Step One Starting the Elevations.....	7-3
Step Two Drawing the Outline	7-3
Step Three Placing the Other Corners.....	7-4
DRAWING THE ROOF LINES.....	7-5
Step Four Constructing the Wall Thickness.....	7-5
Step Five Constructing the Bottom Rafter Line.....	7-6
Step Six Offsetting the Rafter Lines.....	7-7
DRAWING THE OVERHANG	7-8
Step Seven Drawing a Construction Line.....	7-8
Step Eight Extending the Rafter Lines	7-9
Step Nine Drawing the Soffit Line	7-9
Step Ten Trimming the Rafter	7-9
Step Eleven Trimming Opposite Rafter	7-10
Step Twelve Drawing the Roof over the Bedroom Wing	7-11
Step Thirteen Drawing the Front Overhang.....	7-11