

**PRODUCTION OF DRAWINGS WITH THE
AID OF A CAD PACKAGE**

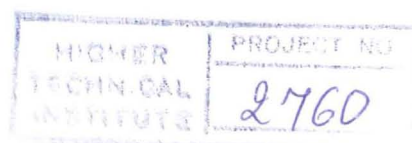
by

ELENI GEORGIADOU

Project Report Submitted to
the Department of Civil Engineering of the
Higher Technical Institute
Nicosia, Cyprus
In partial fulfillment of the requirements
for the diploma of

**TECHNICIAN ENGINEER
in
CIVIL ENGINEERING**

JUNE 1997



INTRODUCTION

The objective of the project is to discuss in general the applicability of computers in the production of drawings and to produce drawings with the aid of a CAD package.

For the needs of this project the AUTOCAD package Release 12 was chosen.

AUTOCAD is a great CAD package (Computer Aided Drafting) a product of AUTODESK Inc. It has been written in C language which is independent of the specific calculating system, which the program is consistent from a large series of drafting features and editing.

This program was written in order to run in IBM-PC computers (and in other compatibles) under the supervision of MS-DOS or PC-DOS functionable systems. Parallel there are some other releases for other systems. Still AutoCAD's drawings can be used in larger CAD systems.

AUTOCAD is a great CAD program the way it is given, but however its capabilities can easily be enhanced through the use of thousands of utilities available from many different resources. Some are available immediately and for others a little research will have to be done.

When someone is already familiar with manual drafting and design techniques or with CAD techniques used in programs other than AUTOCAD, than the drawing techniques and design methods used in AUTOCAD are much the same as those used in manual drafting (and with other CAD programs) only the tools

are different. Learning to use those tools is as simple as learning to use AUTOCAD's user interface.

The preparation required for drawing in AUTOCAD is much like preparation for drawing on drafting board. In manual drafting, drawing tools are selected to fit the particular drawing and similarly in AUTOCAD the parameters must be set up to fit the particular drawing. That is custom tools are created to be used with AUTOCAD.

CONTENTS

	Page
0. INTRODUCTION	8
 CHAPTER 1: General Information	
1.1 CAD: A creator of Models	11
1.2 The special about AUTOCAD	12
1.3 The special about AUTOCAD release 12	12
1.4 Compatibility with other programs	14
1.5 Utility of third-party software	14
1.6 File viewers, special for AUTOCAD	14
1.7 Specializing of AUTOCAD	15
1.8 Computer equipment	17
 CHAPTER 2: Commands and Menus of AUTOCAD	
2.0 Communication with AUTOCAD	20
2.1 Menu	20
2.1.1 The side Menu	20
2.1.2 The pull down menus	21
2.1.3 Menus or Keyboard?	23
2.2 Commands	23
2.2.1 Help	24
2.2.2 Errors	24

CHAPTER 3: Setting-up		Pages
3.	Setting up	27
3.1	Setting up SCALE, LIMITS & UNITS	28
3.1.1	Setting up scale	28
3.1.2	Setting up Limits	29
3.1.3	Setting up units	29
3.2	Setting Layers, COLORS and Linetypes	30
3.2.1	Setting Layers	30
3.2.2	Setting Colors	31
3.2.3	Setting Line types	32
CHAPTER 4: Analysis of AUTOCAD's main commands		
4.1	Editing commands	34
4.2	Display commands	36
4.3	Crosshair control commands	37
4.4	graphics primitive checklist	38
4.5	The Block command	39
4.5.1	The Reasons for using Blocks	40
4.6	The Layer command	41
4.7	The dimensioning command	43
4.8	The Text command	45
4.9	The Hatch command	45
CHAPTER 5: THREE DIMENSIONAL IN AUTOCAD		
5.1	Dimensions in Autocad	48
5.2	What to know about 3D when starting it	49
5.3	Viewing drawings dynamically	50

CHAPTER 6: AUTOCAD LT FOR WINDOWS 95 52

CHAPTER 7: CONCLUSIONS 55

REFERENCES

APPENDICES

DRAWINGS