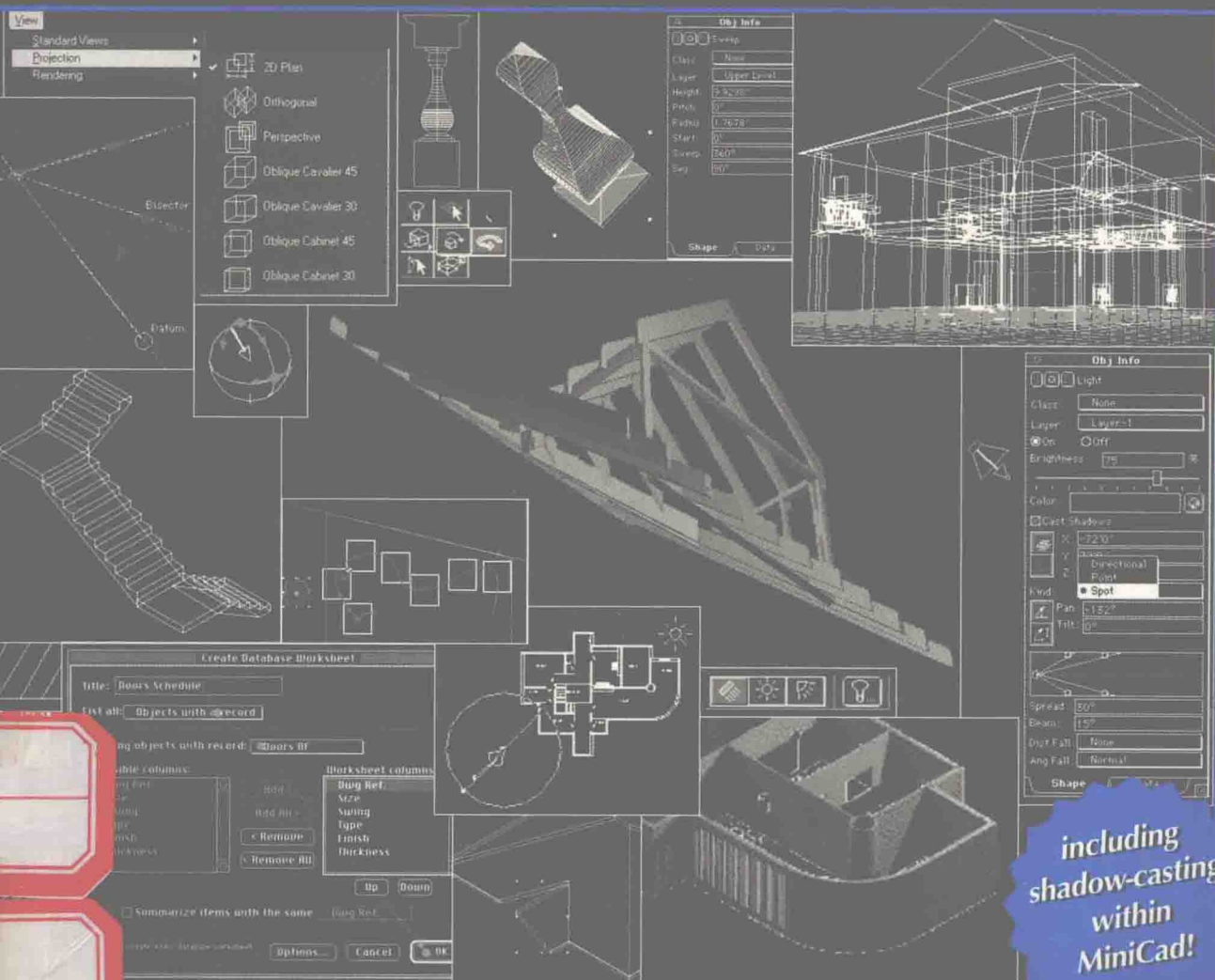


JONATHAN STOPPI

Architectural Drafting in MiniCAD[®] 7

for Mac[™] & Windows[™]

The Standard Textbook for Architects, Designers & Builders



including
shadow-casting
within
MiniCad!

ARCHITECTURAL DRAFTING IN
MiniCAD[®] 7
for Mac[™] & Windows[™]
The Standard Textbook for Architects, Designers & Builders

JONATHAN STOPPI

ARCHITECTURAL DRAFTING IN MINICAD 7

Qualum (Publishing), P O Box 8722, London NW2 2ZA, UK

Copyright © 1997, 1998 Jonathan Stoppi. All rights reserved.

The moral right of the author has been asserted

Conditions of sale

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out or otherwise circulated in any form of binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

British Library Cataloguing-in-Publication Data:

A catalogue record for this book is available from the British Library

Cover design: Lionel Roth

All other illustrations by the author.

Apple and Macintosh are trademarks of Apple Computer, Inc.. MiniCad is a trademark of Diehl Graphsoft, Inc. AutoCad and AutoDesk are registered trademarks of AutoDesk, Inc. All other product names are trademarks or registered trademarks of their respective owners

Printed and bound by The Book Factory, London, England

10 9 8 7 6 5 4 3

ISBN 1 899 168 117

Price: £29.95 (US\$45.00) nett

To the truly global Apple Computer...

– and other eagerly awaited arrivals

Contents

Introduction 9

- A Guide to Graphic Cues & Typefaces 10
- Acknowledgments 11

Installation 13

- Windows 13
- Macintosh 15

First Acquaintance 17

Setting up for the First Time 18

- The First Five Operations 18

Drawing Tools 24

- Where Have All the Constraints Gone?* 26
- The MiniCad Online Reference* 27
- Getting a Handle on Selected Objects* 28

Sketch Design 30

- The Floating Datum 33
- Let the Games Begin 34
- Creating a Block Model 35
- Layers for Levels (or: Another Storey Altogether) 38
- The Obj Info palette as an editing tool 40
- Making an Integrated Model 44

| | |
|-----------------------------------|----|
| Perspectives & Walkthroughs | 46 |
| Preparing for the working drawing | 47 |
| <i>Aspects of Walkthroughs</i> | 47 |

Working Drawings: Walls & Stuff 49

| | |
|--|----|
| <i>On Making Cavity Walls</i> | 52 |
| <i>Custom Visibility...</i> | 55 |
| Stairs & Such | 56 |
| <i>On Moving & Ruling</i> | 59 |
| Floors & Area Definitions | 60 |
| <i>Floors: To Contain or Not to Contain</i> | 61 |
| <i>The Many (Other) Faces of the 2D Reshape Tool</i> | 65 |
| Defining Room Areas | 66 |
| Linear Dimensioning | 68 |
| <i>Editing Dimensions After the Event</i> | 69 |
| Classes: An Introduction | 70 |

Symbols 72

| | |
|---|----|
| General | 72 |
| Windows | 73 |
| <i>Anatomy of a Resources Palette</i> | 74 |
| <i>Know Thy Cursors</i> | 75 |
| Editing Symbols | 76 |
| Doors | 80 |
| <i>Duplicate Symbols in Wall & Other Pointers</i> | 84 |
| Other Symbols | 85 |
| <i>Organizing Your Symbols</i> | 86 |
| Updating Stationery Files | 87 |

Roofs 89

| | |
|--|----|
| <i>About (Roof) Axis Lines</i> | 92 |
| Hips, Intersections & Dormers | 93 |
| <i>On Picking Up & Putting Down Attributes</i> | 94 |
| Intersections & dormers | 96 |

Detail Work (2D) 99

- Layers for Scale 99
- The 'Jotting Pad' file 100
- Hatching 101
- Center Mark Tool 103
- Radial Arcs (other Modes) 103
- Dimensioning Angles 103
 - Off on a Tangent...* 104
- Structural Shapes 105

3D Details 105

- Sweeping 105
- Columns 107
- Multiple Extrude 108
- Add Solids, Subtract Solids, Intersect Solids 109
- 3D Sections 112
- 2D Sections 113

Drawing Analysis 114

- Graphic Info Scheduling 114
- Record Formats & Scheduling User-Defined Info 119
 - More about Worksheets* 121
 - Other Create Database Worksheet Options* 123
- Automatic Labelling (Linking Text to Record) 124

Out & About 126

- Site Plans 126
 - Custom Tool/Attributes: Drafting's Answer to Text Styles* 128

Other Tools & Menus 132

- 2D Tools 132
- 3D Tools 135
- Menus 139
 - On QuickDraw 3D Rendering within MiniCad* 141

Appendix 153

Customizing your MiniCad interface using Overlay Edit 155

Customizing Tools 156

Index 159

Registration Form 171



Introduction

My sincerest apologies to all for the delay in getting out this latest edition to the *ADiM* series, due to a combination of overly-ambitious revision plans, unforeseen commitments at business and at home, and an Job-like series of technical hiccups. The good thing to come of it is that I have been able to include information on and demonstrate the first plug-in offering shadow-casting within MiniCad.

And, of course, much else besides. If you haven't upgraded yet from v6, you may wonder, as I did, what on earth could v7 offer, given that MiniCad 6 seemed to cover pretty much all the bases. Automatic formatting of your drawings in HTML for Web publishing?

The answer, it turned out, was 'Plenty'. Some of these features—like the notion of Sheets instead of Views, Recent Files Menu Selection, a simplified procedure for creating custom commands and schedules, Dashed Hidden Line Rendering, and Automatic Wall Join—are sensible, incremental improvements that make work just that little bit easier. Others, however, like an easy, iconic Viewbar at the bottom of the screen, Associative Hatching, Mathematical Expression Input, Dual-Unit Dimensioning, direct AutoCad .DWG Import and Save, the Wall Framer utility, are answers to age-old wishlists that you quickly wonder how you managed without.

These changes are covered in greater detail in the body of our tutorial, signposted as in previous editions with a suitable eye-catching icon to help veteran users spot the areas that they need to focus on to get up to speed with the new version and/or this book.



Otherwise, this edition, like the application, has kept the same basic approach as its predecessors: the reader is not presumed to know anything of MiniCad beyond the essentials of Macintosh™ or Windows™ operation, and is led to learn its tools and methods painlessly and naturally by using them to solve a sequence of familiar problems. The main departures from previous editions are that, in a bid to emulate the design process a little more faithfully, the reader is shown how to create and evaluate a quick sketch design in 2D and 3D before setting down to working drawings, and in so doing covers two hypothetical projects instead of just one to learn about various issues.

Like its predecessor, this edition is 'universal' in that it is equally applicable to both the North American and metric conventions. However, in this edition the roles have switched: English units are the default, with metric equivalents in square brackets ([...]). Where specific references have to be made to one or the other, (North) American issues are preceded with the sign @; while readers in the Rest of the World are referred to items marked ®.

Square brackets apply also to that other Great Divide, namely between the Mac and Windows versions of the program. In deference to the prevailing cross-section of users, keyboard shortcuts refer by default to the Mac, with Windows equivalents set in square brackets. Most of the screenshots are from the Mac, but where possible the Windows version is used.

A Guide to Graphic Cues & Typefaces

As in previous editions, this book is design in its page size and basic cover binding design to emulate the manuals that come with the application so as to complement them naturally on the shelf. Inside, however, my own conventions apply, namely the main text is in Palatino 10

Incidental comments that are not part of the tutorial procedure but worth knowing are in Palatino 9 Italics like this...



...—while particularly important points to note are flagged like this.


Issues that require more extensive discussion than is possible in a line or two of text will usually be boxed off in a section of their own, surrounded by a dashed line, and typeset one point smaller than the main text.



If a warning or and alert is required, this will also be suitably marked

As always, for the sake of clarity (and to avoid excessive use of quotation marks which often confuse more than they help), I use certain fonts when referring to words and figures on screen, corresponding to their appearance under Mac System 7. Thus:

- Menu items and dialog text are set in **Chicago**.
- Screen hints and palette items are set in **Geneva 7 Bold** or Plain as appropriate

- Keyboard operations (e.g. Shift, Option [Alt]) are in the typewriter-like Courier.
- The Command key on the Mac is now represented by the icon .

Finally, in response to popular acclaim from previous editions, I have extended and deepened my Ghosted Cursor™ technique of solid gray dots, lines and arrowheads to represent clicks, direction of movement and drag motion, respectively. These should help the reader reconcile screenshots with text instructions and go some way to making up for the current absence of an instruction CD-ROM or video on MiniCad 7.



Acknowledgments

I am indebted as always to my friend Rafi Shafir for insights on North American practice and for comments on the use of new features such as the Wall Frame. Also:

- to Wendalyn Nichols for advice on American English
- to Thorsten Lemke for his amazing *GraphicConverter*, and to Westcode Software for *OneClick*, —without which this job would have taken even longer
- to Dan Monaghan and everyone at Diehl Graphsoft who answered my questions
- to my MiniCad clients for insights into the program's uses in their work

... and, of course, to you, reader, for your support, which makes the effort worthwhile. I hope the book lives up to expectations. If it does, tell your friends and colleagues. If it doesn't, tell me: a registration form is enclosed at the back for your comments (or use its equivalent posted on the Qualum website at <http://qualum.com/>): please fill this out and return to me with your comments and suggestions, as these will help a great deal in improving the book in future editions. A free copy of my custom AEC Overlay will be sent to all respondents who so wish (see Appendix for details).

Live long and... er, Render.

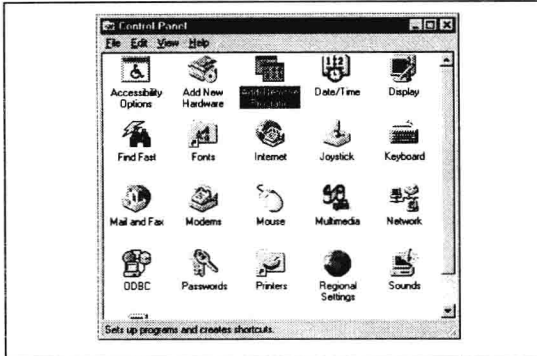
— JS
London
September 1997



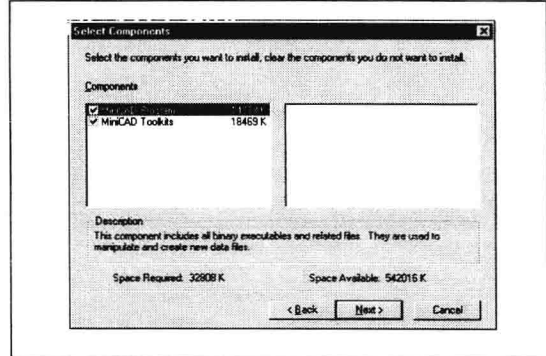
Installation

Windows

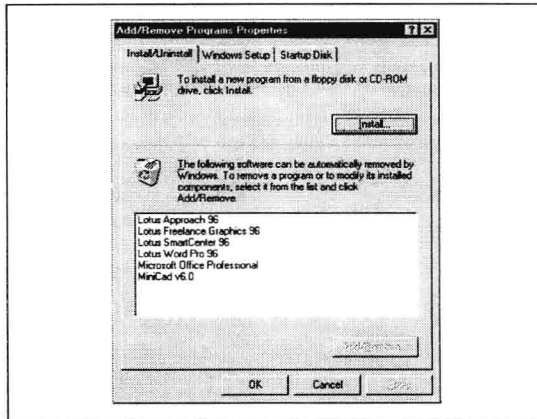
Quit all running applications. From the Start pop-up, call up the Control Panel dialog.



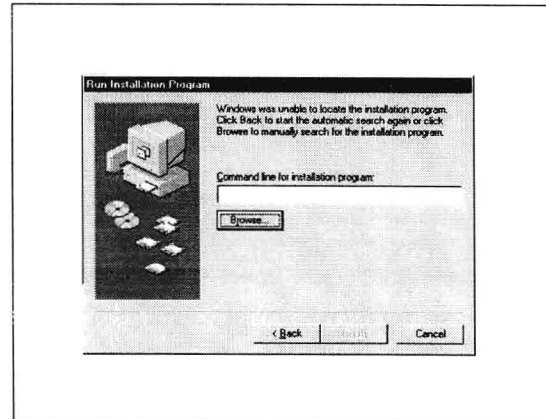
Double-click Add/Remove Programs



Keep MiniCad Program and MiniCad Toolkits both checked and click Next >

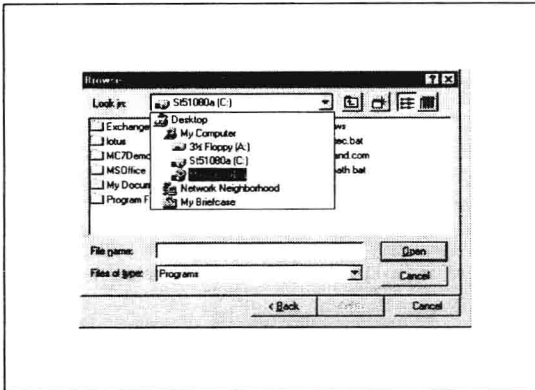


In the **Add/Remove Programs Properties** dialog click Install...

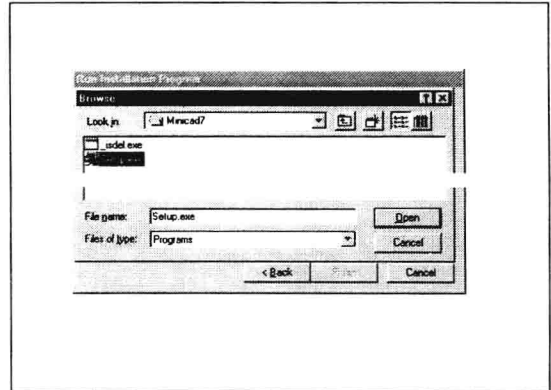


In the **Run Installation Program** dialog click Browse... (or type the appropriate Command Line if you know it)

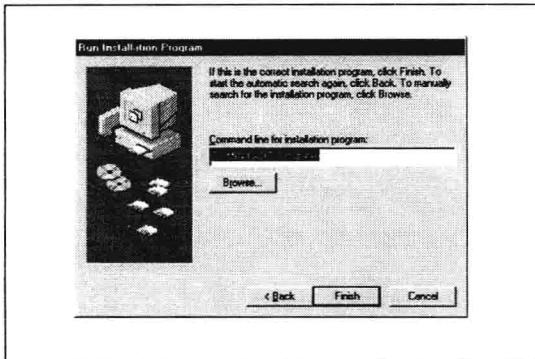
/...



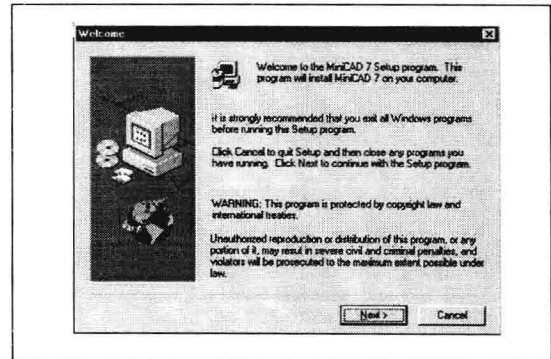
From the **Look in:** pop-down, double-click the **Minicad7 CDRM**



Dbl-click **Setup.exe** file

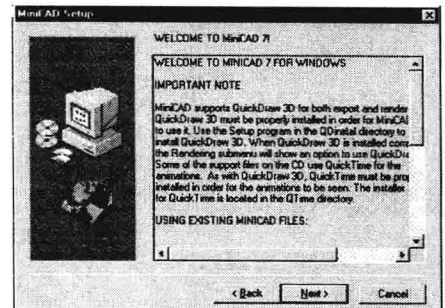


In the **Run Installation Program** dialog, click **Finish**



In the **Welcome** dialog, Click **Next >**

In the **MinicAD Setup** dialog, click **Next>** and follow instruction (including entering your details and serial no. from the CDROM cover).



Macintosh

Double-click the **MiniCad Installer** program.

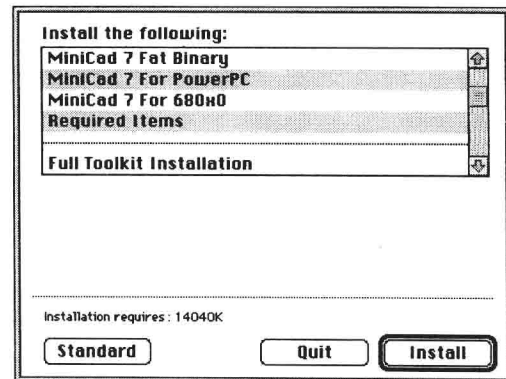
In the dialog, click **Install...** or — to reduce the size of hard disk space necessary for installation — click **Custom**



Pressing the Command (⌘) key to allow non-contiguous selection, click on the options suitable for your machine...

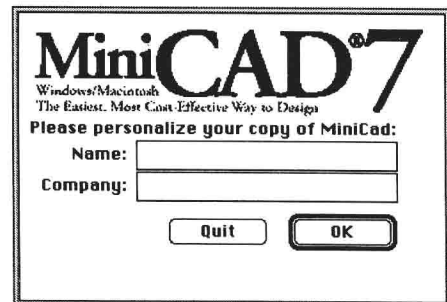
Fat Binary includes the versions for both PowerPC and 680x0 Macs: this is good when you're installing on an external hard disk that may be used with machines of either specification—otherwise it's not necessary

... as well as all toolkits you think you will require. Skip the toolkits for Mechanical Engineering and others that you are sure aren't applicable.



Press **Enter** to or click **Install**

Enter your details and serial number (printed on the CD-ROM cover).



◇

