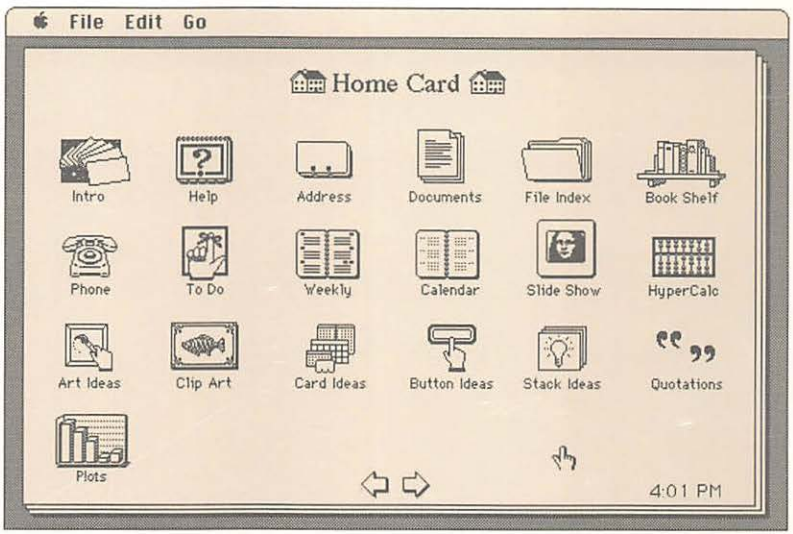
HyperCard™ User's Guide



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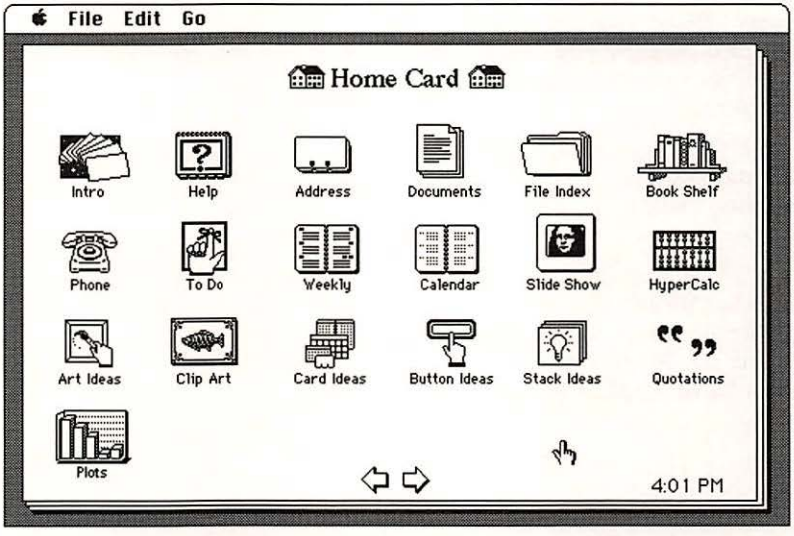
Macintosh™ HyperCard™ User's Guide



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Contents

Figures and tables x

Preface **Before You Begin xv**

What you need to use HyperCard xvi
About system software xvi
What you need to know xvii
What comes with HyperCard xvii
Copy your disks xviii
Installing HyperCard on a hard disk xviii
How this guide is organized xix
Some conventions used in this guide xx
About on-line help xxi
On-line help versus this guide xxi
Where to get HyperCard stacks xxi
User groups xxii
Advanced documentation xxii

Chapter 1 **Browsing and Editing 1**

Getting the most out of the tutorials 2
Getting started 2
Browsing 3
Letting HyperCard teach you 4
Home 6
Using the Address stack 7
A quick browse/search recap 10
Changing text 10
Adding a card 11
How cards are arranged in a stack 12
Explore the Help stack 14
Recent: Seeing where you've been 15

What you've learned so far 17
How to get there from here 18
What to do next 18

Chapter 2 **Customizing 19**

Painting 20
Setting user level to see the Tools menu 21
Changing the way a card looks 23
Copying a picture from another card 24
Using the Paint tools 28
Some Paint tool tips 29
Experiment time 30
Authoring 31
Making a new stack from an existing one 32
Moving buttons 34
Deleting buttons 35
Copying buttons from another stack 36
Changing a field's size and position 37
Copying a field 39
Cards versus backgrounds 40
Experiment for a while 44
Connecting to the Home card 44
Where to go from here 46

Chapter 3 **Home 47**

Home card 48
Search paths 49
User Preferences 50
Ways to go Home 52

Chapter 4 **Text in HyperCard 53**

Fields 54
Creating fields 56
Placing and moving fields 57
Changing a field's size 58
Deleting a field 59
Moving between fields 59
Tab order and layers 60
Changing field tab order 61
Duplicating a field 61
Field names 62
Field styles 63

Lock Text 64
Wide Margins and Show Lines 64
Creating regular text 65
Entering text 66
Moving and copying text 67
Setting text properties 68
Font 69
Style 69
Align 69
Size 70
Height 70
Summary 71

Chapter 5 **Graphics in HyperCard 73**

Menu commands you use with graphics 74
Power keys 75
Power key P: Making a graphic cookie cutter 76
Power key S: Tightening the selection 76
Power key T: Turning a graphic transparent 77
Double-clicking Paint tools 78
Dragging with modifier keys 79
Special effects 80
Importing pictures 81
Summary 82

Chapter 6 **Menu Commands 83**

File menu 84
The different File menus 85
New Stack... 86
Open Stack... 86
Save a Copy... 87
Import Paint 88
Export Paint 88
Compact Stack 89
Protect Stack 89
Can't delete stack 90
Private Access 90
Set Password 90
Limit user level 92
Delete Stack 93
Page Setup 94
Print Card 95

Print Stack... 95
Manual paper feed 96
Fast laser printing/Darker printing 96
Cards printed per page 96
Page formats 96
Header 97
Format remembered 97
Print Report 98
Field printing order 100
Labels 100
Columns 101
Rows 102
Manual paper feed 105
Header 105
Format remembered 105
Quit HyperCard 105
Edit Menu 105
The different Edit menus 106
Undo 106
Cut 107
Cutting a picture 107
Cutting buttons and fields 107
Cutting a card 108
Cutting a background 108
Copy 108
Copying a picture 108
Copying buttons and fields 109
Copying a card 109
Copying a background 110
Paste 111
Pasting a card in miniature 111
Clear 112
New Card 112
Delete Card 113
Cut Card 113
Copy Card 113
Text Style 114
Background 115
Go menu 116
Back 116
Home 117
Help 118
Recent 118
First 119
Prev 119

Next 119
Last 120
Find 120
Searching in a specific field 121
Message 123
Tools menu 124
Menu bar changes 126
Browse tool 126
Button tool 126
Field tool 129
Selection tool 131
Lasso 133
Pencil 135
Brush 135
Eraser 136
Line tool 137
Spray tool 138
Rectangle tool 138
Rounded Rectangle tool 139
Bucket 140
Oval tool 141
Curve tool 142
Paint Text tool 143
Regular Polygon tool 144
Polygon tool 145
Objects menu 146
Button Info 147
Button name 148
Show name 148
Button number and layers 148
Button ID 148
Style 149
Auto hilite 149
Icon... 150
LinkTo... 151
Script 152
Field Info 153
Field number 154
Field ID 155
Script 155
Card Info 155
Can't delete card 156
Changing a card's position in a stack 156

Bkgnd Info 157
Can't delete background 158
Stack Info 159
Stack Name 159
Where 160
Free in Stack 160
Bring Closer 160
Send Farther 161
New Button 162
New Field 162
New Background 163
Paint menu 163
Select 164
Select All 165
Fill 165
Invert 165
Pickup 166
Darken 167
Lighten 167
Trace Edges 168
Rotate Left 168
Rotate Right 169
Flip Vertical 169
Flip Horizontal 170
Opaque 170
Transparent 171
Keep 171
Revert 171
Options menu 172
Grid 172
FatBits 173
Moving the picture around 174
Entering and leaving FatBits quickly 174
Power Keys 174
Line Size 176
Brush Shape 176
Edit Pattern 177
Using a nonstandard pattern 177
Polygon Sides 178
Draw Filled 178
Draw Filled with the Polygon tool 179
Draw Filled with the Curve tool 180
Draw Centered 180
Draw Multiple 181

Patterns menu 182
Editing patterns 183

Chapter 7 **Keyboard Commands 185**

Command key menu commands 186
Browsing 188
Text editing 190
Paint power keys 190
Dragging with modifier keys 191
Miscellaneous keyboard short cuts 192

Appendix A **Common HyperCard Messages 195**

Message descriptions 195
HyperTalk: The source of all messages 196
How to read messages 196
Date 197
DoMenu 197
Go 197
Hide 198
Open 198
Pop Card 199
Push Card 200
Show 200
Show Cards 200
Time 201

Appendix B **HyperCard Disks 203**

HyperCard Startup 203
HyperCard & Stacks 204
HyperCard Help 204
HyperCard Ideas 204
About the provided HyperCard documents 205

Glossary 207

Index 211

Figures and tables

Preface **Before You Begin xv**

Table P-1 System file versions xvi

Chapter 1 **Browsing and Editing 1**

Figure 1-1 Starting HyperCard 3
Figure 1-2 Some cards—HyperCard's fundamental units of information 4
Figure 1-3 First card of the on-line introduction 5
Figure 1-4 Home card 6
Figure 1-5 First card in Address stack 7
Figure 1-6 The Message box 8
Figure 1-7 Finding a card 8
Figure 1-8 Finding other words that start with ST 9
Figure 1-9 Changing an address card 11
Figure 1-10 A new address card 12
Figure 1-11 Cards ringed in a stack 13
Figure 1-12 Sort dialog box 13
Figure 1-13 Help stack's first card 15
Figure 1-14 Recent 16

Chapter 2 **Customizing 19**

Figure 2-1 Paint tool at work 21
Figure 2-2 User Preferences card 22
Figure 2-3 Changing user levels 23
Figure 2-4 Paint tools 23
Figure 2-5 Book of verses card 25
Figure 2-6 Food card 26
Figure 2-7 Selecting a picture 26
Figure 2-8 Going back to the Quotations stack using Recent 27
Figure 2-9 Pasting a copied image 28
Figure 2-10 Using the Paint tools and Pattern menu 29
Figure 2-11 Tearing off a menu 30

Figure 2-12 Moving up to Authoring 32
Figure 2-13 A To Do card 33
Figure 2-14 Making a new stack 33
Figure 2-15 First card in new stack 34
Figure 2-16 To Do card with Telephone button moved 35
Figure 2-17 Assorted buttons 37
Figure 2-18 Help button pasted, fields visible 37
Figure 2-19 Shrinking and moving fields 38
Figure 2-20 Copying a field 39
Figure 2-21 A background shared by a number of cards 40
Figure 2-22 Background versus card field 41
Figure 2-23 First card versus second card 42
Figure 2-24 Background 42
Figure 2-25 Button Info dialog box 45
Figure 2-26 LinkTo dialog box 45
Figure 2-27 Exploring with the Help stack 46

Chapter 3 **Home 47**

Figure 3-1 Home card 48
Figure 3-2 Dialog box for finding a file 49
Figure 3-3 Setting preferences 50
Figure 3-4 Short and full File and Edit menus 51

Chapter 4 **Text in HyperCard 53**

Figure 4-1 Different kinds of fields 55
Figure 4-2 Field tool in Tools menu 56
Figure 4-3 Creating a new field by dragging 56
Figure 4-4 Changing a field's size 58
Figure 4-5 Tab order 60
Figure 4-6 Field number, initially determined by creation order 61
Figure 4-7 Naming a field 62
Figure 4-8 Choosing a field style 63
Figure 4-9 Field styles 64
Figure 4-10 Wide Margins 65
Figure 4-11 Show Lines 65
Figure 4-12 Selecting the Browse tool 66
Figure 4-13 Revealing hidden text 67
Figure 4-14 Text Style dialog box 68

Chapter 5 **Graphics in HyperCard 73**

Figure 5-1 Source image picks up pattern of overlaid image 76
Figure 5-2 Refining a selection 77
Figure 5-3 Opaque and transparent images 77
Figure 5-4 Special effects 80
Figure 5-5 Imported digitized image 81

Table 5-1 Power keys 75
Table 5-2 Effects of double-clicking Paint tools 78
Table 5-3 Effects of modified dragging 79

Chapter 6 **Menu Commands 83**

Figure 6-1 General and Paint tools 84
Figure 6-2 File menus 85
Figure 6-3 Naming a stack 86
Figure 6-4 Saving a stack under a different name 87
Figure 6-5 Protect Stack dialog box 90
Figure 6-6 Password dialog box 91
Figure 6-7 Matching and nonmatching characters 91
Figure 6-8 Short and full File and Edit menus 92
Figure 6-9 Dialog box for deleting a stack 93
Figure 6-10 Page Setup dialog box 94
Figure 6-11 Print Stack dialog box 95
Figure 6-12 Standard format and Split-page format 97
Figure 6-13 Print Report dialog box 98
Figure 6-14 Print Report in label format 101
Figure 6-15 Print Report in column format 102
Figure 6-16 Print Report in row format 103
Figure 6-17 Print report in row format, top to bottom order 104
Figure 6-18 Print report in row format, left to right order 104
Figure 6-19 Short and full Edit menus 106
Figure 6-20 Text styles dialog box 114
Figure 6-21 Background versus card picture 115
Figure 6-22 Menu bar striped while working in background 116
Figure 6-23 Go menu 116
Figure 6-24 Home card 117
Figure 6-25 Recent 118
Figure 6-26 Message box 120
Figure 6-27 Finding a name 121
Figure 6-28 Limiting the search 122
Figure 6-29 Finding out a field's number 122
Figure 6-30 Sending a message 123
Figure 6-31 Tools in action 124

Figure 6-32 Tool names 124
Figure 6-33 Using the Tools palette 125
Figure 6-34 Buttons with button tool selected 127
Figure 6-35 New Button dialog box 128
Figure 6-36 New Field dialog box 131
Figure 6-37 Eliminating extra white space in a selection 131
Figure 6-38 Shrunk and stretched selection 132
Figure 6-39 Only the lassoed fish are selected 133
Figure 6-40 Multiple copies 134
Figure 6-41 Stretched and enlarged 134
Figure 6-42 Drawing the opposite color 135
Figure 6-43 Different brush shapes create different effects when you paint 136
Figure 6-44 Line and border width 137
Figure 6-45 Rectangles with patterned borders 138
Figure 6-46 Creating and combining rounded rectangles 139
Figure 6-47 Using the Bucket 140
Figure 6-48 Paint spilled in enclosed and unenclosed areas 141
Figure 6-49 Drawing filled and unfilled shapes 142
Figure 6-50 Text Style dialog box 143
Figure 6-51 The Regular Polygon tool always draws as though you have Draw Centered turned on 144
Figure 6-52 Double-click the tool to select a shape 144
Figure 6-53 Using the Polygon tool 145
Figure 6-54 Creating an enclosed polygon 146
Figure 6-55 Objects menu 147
Figure 6-56 Button Info dialog box 147
Figure 6-57 Button styles 149
Figure 6-58 Highlighting different styles 150
Figure 6-59 Icon dialog box 150
Figure 6-60 Dialog box for making links 151
Figure 6-61 The Field Info dialog box 153
Figure 6-62 Field styles 154
Figure 6-63 Card Info dialog box 155
Figure 6-64 Bkgnd Info dialog box 158
Figure 6-65 Stack Info dialog box 159
Figure 6-66 Moving a button closer 161
Figure 6-67 Making new buttons 162
Figure 6-68 Paint menu 163
Figure 6-69 Using Select 164
Figure 6-70 Using Fill 165
Figure 6-71 Inverting a picture 165
Figure 6-72 How Pickup works 166
Figure 6-73 Using Darken 167
Figure 6-74 Using Lighten 167

Figure 6-75 Untraced, single-traced, and multitraced areas 168
Figure 6-76 Rotating an image to the left 168
Figure 6-77 Rotating an image to the right 169
Figure 6-78 Flipping an image vertically 169
Figure 6-79 Flipping an image horizontally 170
Figure 6-80 Opaque command 170
Figure 6-81 Transparent command 171
Figure 6-82 Options menu 172
Figure 6-83 FatBits 173
Figure 6-84 Line sizes 176
Figure 6-85 Brush Shapes dialog box 176
Figure 6-86 Pattern editor 177
Figure 6-87 Switching patterns 178
Figure 6-88 Selecting a shape 178
Figure 6-89 Using Draw Filled 179
Figure 6-90 Tools menu with Draw Filled turned on and turned off 179
Figure 6-91 Creating an enclosed, filled polygon 180
Figure 6-92 Creating a filled, curved shape 180
Figure 6-93 Drawings made with Draw Centered checked 181
Figure 6-94 Drawing shapes with and without Draw Multiple checked 181
Figure 6-95 Torn-off Pattern palette 182
Figure 6-96 Pattern editor 183

Table 6-1 Powers associated with each user level 92
Table 6-2 Controlling the printout of a report 99
Table 6-3 Power keys 175

Chapter 7 **Keyboard Commands 185**

Table 7-1 Keyboard equivalents by menu 187
Table 7-2 Keyboard equivalents by command 187
Table 7-3 Browsing from the keyboard 189
Table 7-4 Text editing keys 190
Table 7-5 Power keys available when using Paint tools 191
Table 7-6 Effects of modified dragging 192
Table 7-7 Miscellaneous actions 192

Appendix A **Common HyperCard Messages 195**

Figure A-1 Popping order 199

Preface

Before You Begin

HyperCard™ is a new kind of application—a unique information environment for your Apple® Macintosh™ computer. Use it to look for and store information—words, charts, pictures, digitized photographs—about any subject that suits you. Any piece of information in HyperCard can connect to any other piece of information, so you can find out what you want to know in as much or as little detail as you need.

What you need to use HyperCard

HyperCard works in any Apple Macintosh computer with 1 megabyte of memory or more, and two 800K disk drives. It works best in systems with a hard disk drive and a printer.

- *HyperCard and MultiFinder:* To get the most out of your system when you're using HyperCard and any other application under MultiFinder™, your system should have at least 2 megabytes of memory. Your authorized Apple dealer can quickly upgrade your system with the necessary extra memory.

About system software

HyperCard comes with the latest **System file,** a file your computer uses to perform its basic operations. The System Folder in the disk labeled HyperCard Startup has System version 4.1.

You need to be concerned about the version number of the System file if you plan to use HyperCard on your own startup disks. (Startup disks all have System files on them.) HyperCard works fine under System files with the version numbers in Table P-1 (or higher numbers).

Table P-1
System file versions

Computer	System	Finder
Macintosh Plus	System 3.2	Finder 5.3
Macintosh SE	System 4.0	Finder 5.4
Macintosh II	System 4.1	Finder 5.5

To find out the version of the System file on your startup disks, look in the System file Get Info box.

Macintosh II Do not use the System file on the HyperCard Startup disk to run the Macintosh II, even though its version number is 4.1: it will not work properly. Use whatever System Folder you currently have to start up your computer.

- *LaserWriter users take note:* To use a LaserWriter® printer with HyperCard, you must be using LaserWriter file version 4.0 (or higher numbers).
- *Finder not necessary:* You don't need a Finder on startup disks that you use exclusively for HyperCard. You do, however, need a System file.

What you need to know

This guide assumes you've already read and are familiar with the owner's guide that came with your computer. Before you use HyperCard, you should know how to

- ☐ use the mouse
- ☐ open applications and documents
- ☐ do simple editing
- ☐ use the Finder

What comes with HyperCard

Besides this manual, your HyperCard package should contain four disks, named as follows:

- ☐ HyperCard Startup
- ☐ HyperCard & Stacks
- ☐ HyperCard Help
- ☐ HyperCard Ideas

In the unlikely event that anything is missing, immediately contact your dealer for replacement.

See Appendix B, "HyperCard Disks," for a list of the **stacks** (the name for HyperCard documents) and other files on each disk.

Copy your disks

Before you do anything else, make copies of all the HyperCard disks to use as your working disks. Then put the originals away in a safe place.

HyperCard is an inviting program to use and to experiment with. HyperCard documents are extremely easy to change. You might want to use your original HyperCard documents to replace a document you've experimented with; so it's important that you keep a set of these documents in their unaltered states.

Copy your HyperCard disks now, before you do anything else. If you're not sure how to copy disks, see the owner's guide that came with your computer.

Installing HyperCard on a hard disk

Using HyperCard on a hard disk system is easy. Just copy all the files on all the disks *except* HyperCard Startup to your hard disk.

❖ *Hard disk set up?* This section assumes your hard disk is already set up. If it isn't set up yet, see the *Macintosh Utilities User's Guide* that came with your computer and your hard disk owner's manual for instructions.

■ To install HyperCard on a hard disk:

1. **Start your computer as you normally would.**
2. **Insert the disk labeled HyperCard & Stacks into your computer's built-in 3.5-inch disk drive.**

   It doesn't matter which drive you use if you have two 3.5-inch disk drives.

3. **Open the HyperCard & Stacks disk.**

   To open the disk, click its icon and choose Open from the File menu. Double-clicking the disk also opens it.

4. **Choose Select All from the Edit menu, then drag all the files to your hard disk.**

   See the owner's guide that came with your computer if you don't know how to drag to a disk.

5. **Drag the HyperCard & Stacks disk to the Trash and insert the HyperCard Help disk.**

   Dragging a disk to the Trash ejects the disk and removes its icon from the desktop. (It does not erase the disk.)

6. **Open the disk, choose Select All from the Edit menu, and drag to the hard disk.**

7. **Drag the HyperCard Help disk to the Trash and insert the HyperCard Ideas disk.**

8. **Open the disk, choose Select All from the Edit menu, and drag to the hard disk.**

9. **Drag the HyperCard Ideas disk to the Trash.**

HyperCard is now installed on your hard disk and ready to go.

How this guide is organized

This section describes all the chapters and appendixes in this guide.

- Chapter 1, "Browsing and Editing," is a tutorial on getting around in HyperCard. It teaches you how to use some of HyperCard's most important features.
- Chapter 2, "Customizing," presents two more tutorials. These tutorials teach you how to customize HyperCard documents for your own use.
- Chapter 3, "Home," gives details about this all-important HyperCard document.
- Chapter 4, "Text in HyperCard," provides information on HyperCard fields (the places you create to hold text), how to enter text into those fields, and how to control text styles.
- Chapter 5, "Graphics in HyperCard," pulls together HyperCard's graphic elements and suggests ways to use various HyperCard tools and commands to produce finished pictures.

- Chapter 6, "Menu Commands," gives detailed descriptions of every HyperCard menu command. This chapter also includes step-by-step instructions for carrying out HyperCard's most common procedures.
- Chapter 7, "Keyboard Commands," summarizes all the HyperCard commands and features that you can execute directly from the keyboard.
- Appendix A, "Common HyperCard Messages," lists the most common instructions you send to HyperCard using a feature called the Message box. (This appendix is for advanced HyperCard users.)
- Appendix B, "HyperCard Disks," gives a listing of the documents and other files on each of the disks that comes with HyperCard.

Some conventions used in this guide

Several special elements in this manual's text are designed to make learning easier.

❖ *By the way:* A note like this presents additional information or interesting sidelights.

Important Be sure to read every item that's labeled this way, with a tag in the margin.

Warning Warnings like this alert you to situations where you could damage software or lose data.

Definitions of terms and references to other parts of the book sometimes appear in the margin.

Terms in **boldface type** are defined in the glossary. Sometimes the definition or additional information about such terms also appears in the margin.

A special typeface indicates characters that you should type:

```
It looks like this.
```

■ How-to sections are indicated by a red symbol.

About on-line help

HyperCard's Help system gives you immediate, on-line assistance whenever you get stuck. Use it when you've forgotten some procedure you read about in this book, or when you want a quick overview of a feature that's unfamiliar to you.

On-line help versus this guide

On-line help is assistance you can get from an application program while it's running.

On-line help in HyperCard differs from the help you'll find in this user's guide in these key ways:

- On-line help is brief; this guide is detailed. Turn to this guide when you need an in-depth discussion of a topic.
- On-line help might have information on a feature added after this guide was written.
- On-line help lets you get to the information you need by clicking buttons and by doing electronic searches. It uses HyperCard's best features to explain HyperCard, and stands as an example of what HyperCard can do. To find information in this guide, you look up the subject in the table of contents or in the index and (alas) manually turn to the referenced page.

Where to get HyperCard stacks

Stacks are collections of information created by and used with HyperCard. You can create stacks yourself, or you can get them from a variety of sources.

- You'll find Stackware™ documents for sale at your local computer software store. Stackware products are expressly created for use with HyperCard.
- Check with your local Macintosh user group to find out the meeting time of the HyperCard special interest group. Members often exchange member-created stacks with each other.
- Most on-line electronic information services like CompuServe and GEnie have Macintosh special interest groups. These groups have (or soon will have) stacks you can get free, except for the service's time charges.

User groups

Ask your dealer for the name of a Macintosh user group near you. If you live in the United States, you can call 1-800-538-9696 for the name, address, and telephone number of up to three Macintosh user groups in your geographic area.

Outside the United States, ask your dealer or get in touch with

The Boston Computer Society
One Center Plaza
Boston, Massachusetts 02108
(617) 367-8080

or

Berkeley Macintosh User Group
1442-A Walnut Street #62
Berkeley, California 94709
(415) 849-9114

Either of these organizations can provide you with the name of a Macintosh user group near you. You can also join either of these groups or ask them for information on starting your own Macintosh user group.

Advanced documentation

This guide covers everything you need to know to use HyperCard effectively up to the scripting level. For details about scripts and other advanced HyperCard features, see the *HyperCard Script Language Guide,* available from:

Apple Programmer's and Developer's Association
290 SW 43rd Street
Renton, WA 98055
Telephone: (206) 251-6548

Chapter 1

Browsing and Editing

This chapter teaches you HyperCard basics. It covers things everyone must know to use HyperCard. You'll learn how to

- use some important HyperCard documents (called **stacks**)
- roam through HyperCard stacks
- search for information
- edit text on **cards** (HyperCard's basic unit of information)
- create places to hold new information

Getting the most out of the tutorials

Throughout this chapter and Chapter 2, you'll see one or more boldfaced sentences that begin with the symbol ■. The symbol marks an action for you to do, to give you some experience working with HyperCard. Follow any numbered boldfaced steps in order.

Getting started

Before you can start your tutorials, you need to get HyperCard up and running. You start HyperCard the same way you start any Macintosh application.

HyperCard icon

■ **Start HyperCard:**

If you're starting HyperCard from a hard disk:

1. **Click the HyperCard icon in the Finder to select it.**
2. **Choose Open from the File menu.**

   Or double-click the icon to open it.

If you're using HyperCard with 3.5-inch disk drives:

1. **Start the computer.**

   If the computer is already on, choose Restart from the Special menu. (If you don't have Restart, choose Shut Down.)

2. **Put a copy of the disk labeled HyperCard Startup into the startup drive.**

Important HyperCard cannot work with a locked disk (or locked volume). Make sure that any disk you want to use is unlocked.

Macintosh II Do not use the HyperCard Startup disk. Use your regular startup disk, and put a copy of the disk labeled HyperCard & Stacks into the other drive, skipping Step 3. Open HyperCard by double-clicking its icon. Swap disks as needed to get to the Help Stacks or Ideas Stacks folders while doing the tutorial.

3. Put a copy of the disk labeled HyperCard Help into the other drive.

HyperCard starts automatically. You'll see the screen in Figure 1-1.

Figure 1-1
Starting HyperCard

Browsing

Before you start to explore HyperCard, you'll need to know a few terms—specifically **browsing, card, stack, button,** and **tool.**

Browsing is HyperCard's term for roaming around cards and stacks.

A **card** is HyperCard's basic unit of information. A card fills the entire screen. (On larger-screen Macintoshes like the Macintosh II, a card appears in a window—you have some extra room on the edges.) What you see on the screen now is a card; Figure 1-2 shows some others.

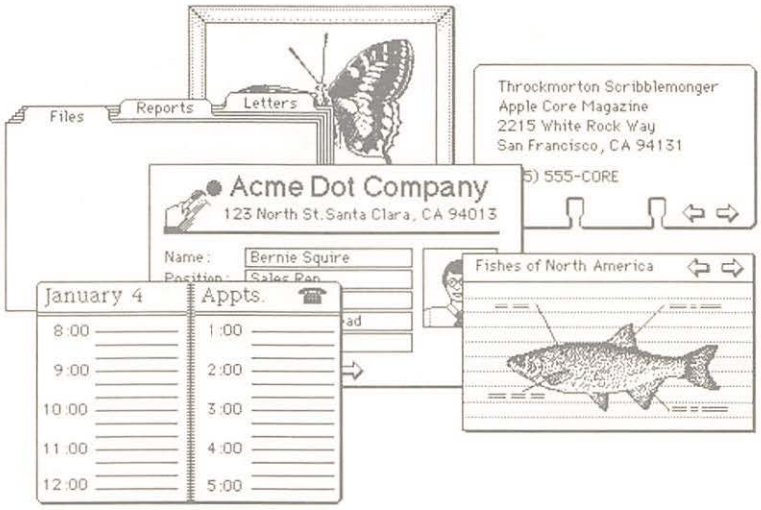


Figure 1-2
Some cards—HyperCard's fundamental units of information

Stack icon

A named collection of cards is called a **stack.** You can think of a stack as a HyperCard document. Cards in a stack usually (but not necessarily) are based on the same theme. An icon for each stack appears in the Finder.

You do much of your browsing in HyperCard by clicking **buttons.** You activate buttons with the Browse tool.

- **Move the mouse around.**

Browse tool

The little hand you see moving around when you move the mouse is the Browse tool. HyperCard has many tools that you use to look for and to create information. The Browse tool is the tool you'll use most often.

Letting HyperCard teach you

You can learn a lot about HyperCard just by using it. This is especially true when you go through the on-line Introduction. (*On-line* means presented by the computer, as opposed to presented by this user's guide.)

Intro icon

■ **Go through the on-line introduction:**

1. **Move the mouse until the Browse tool is on the Intro icon, and click.**

   (It's near the screen's left corner.) In a few seconds, the card in Figure 1-3 appears.

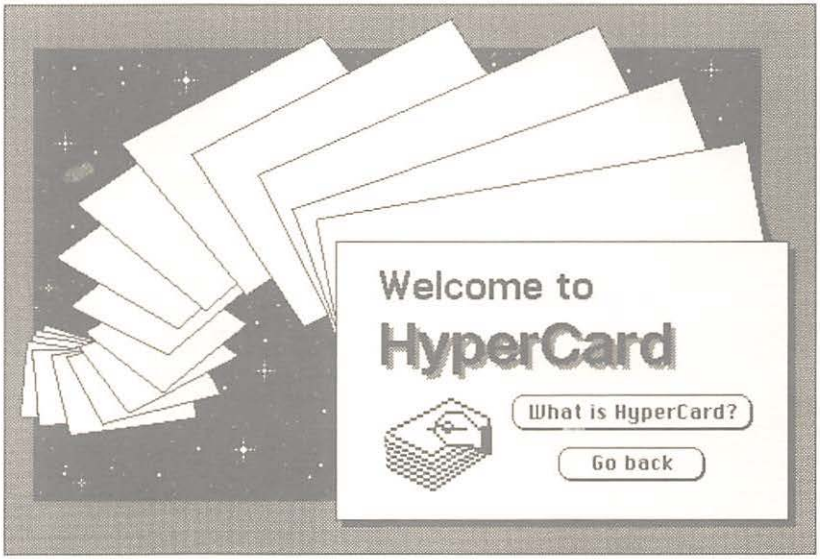


Figure 1-3
First card of the on-line Introduction

Previous card arrow

2. **Click the button labeled "What is HyperCard?"**

   During the introduction you might want to review a card you've already seen. To do that, click the left arrow button to go back through the Introduction stack one card at a time.

❖ *You can always go back:* Another way to see the previous card is to press the Tilde key. Stacks in HyperCard often link to each other (a concept you'll learn more about later). While the left arrow brings you to the previous card in the stack you're looking at, the Tilde key brings you to the last card you saw, no matter what stack it was in.

■ **When you get to the card titled "What Next?" in the on-line Introduction, click "Home to explore on my own"; then come back to this guide and continue reading.**

Home

You should be back at the **Home card,** the card you saw when you started HyperCard. You'll see Home more than any other card. Home is your base of operations, the jumping-off point for all your explorations in HyperCard.

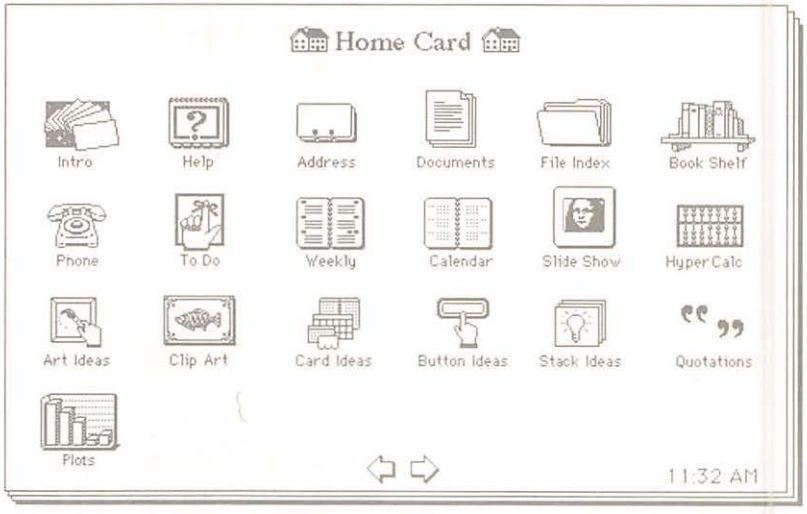


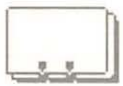
Figure 1-4
Home card

The Home card, first card in the Home stack, is a visual directory for your most important cards and stacks. Clicking one of the pictures here brings you to the card that the picture represents. (Each picture is actually a button.) In Chapter 2, you'll learn how to add pictures representing your own cards and stacks to the Home card.

To get back to Home at any time, choose Home from the Go menu.

Go menu

- *About the Go menu:* The Go menu is HyperCard's navigation panel. You can use it to go from one card to another within a stack, to trace your way back through cards and stacks you've already seen, and to get help whenever you need it. In the early stages of working with HyperCard, you're likely to use the Go menu more than you'll use any other menu.



Address icon

In a few moments you'll use the Home card to move to the Address stack. The Address stack is your personal telephone directory.

As you're learning how to use the Address stack, you'll pick up a valuable HyperCard skill—how to look for information by searching for specific text rather than browsing from card to card.

Using the Address stack

The Address stack holds addresses and phone numbers. You look for a specific name, address, or phone number using the Message box.

■ **Open the Address stack and look for a name:**

HyperCard comes with some sample Address cards; in this exercise, you'll look for a card with the name Steve on it.

1. Click the button that looks like an address card.

The card in Figure 1-5 appears.

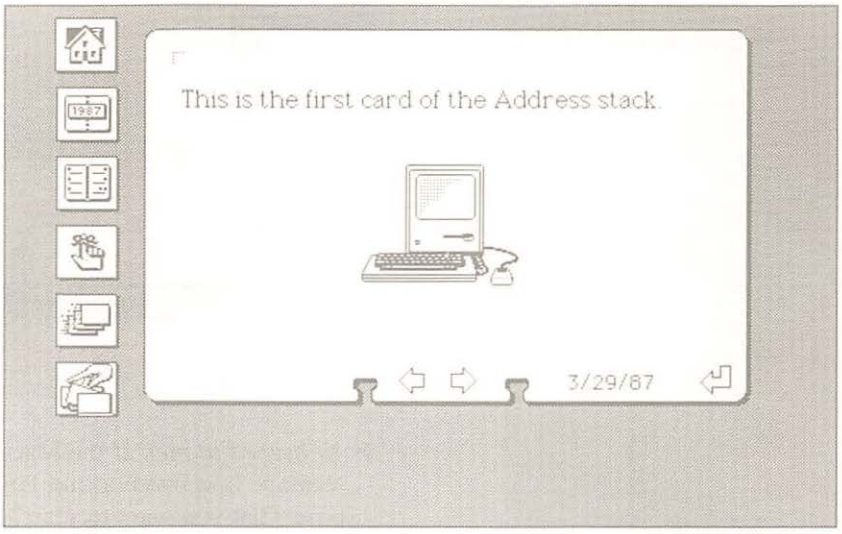


Figure 1-5
First card in Address stack

2. Choose Find from the Go menu.

The Message box appears near the bottom of the screen. (See Figure 1-6.)

Figure 1-6
The Message box

3. Type `Steve` and press Return.

Spinning beach ball

The insertion point is already positioned between quotation marks for you. (You have to type between quotation marks for Find to work.) The pointer turns into a beach ball; it spins while HyperCard looks for a card with the name "Steve" on it. The card in Figure 1-7 appears.

Figure 1-7
Finding a card

❖ *"It beeped at me!"* If the Macintosh sounds a beep, reset the Message box by choosing Find from the Go menu and once again type what you want to search for. HyperCard beeps to let you know it can't find what you ask for. Sometimes this means that you spelled something incorrectly, and sometimes it means that what you asked for isn't in the stack.

HyperCard looks for the first card with text that starts with what you typed, and puts a box around the word. Pressing Return again makes HyperCard look for the next card with Steve on it.

- **Look for part of a word or name:**

HyperCard looks for what you ask, even if what you type is part of another word. You can see this work if you type `ST` into the Message box.

1. **Reset the Message box by choosing Find from the Go menu again.**

   Each time you choose Find, HyperCard highlights any old text between quotation marks. The highlighted text will be replaced by any new text you type.

2. **Type `ST` into the Message box and press Return.**

   Press Return a few more times, and see the results you get.

Figure 1-8
Finding other words that start with ST

You can learn more about searching later by reading the section called "Find" in Chapter 6.

A quick browse/search recap

Find is another new way for you to get around in HyperCard. It's different from the other ways in that it's more specific—you have to know what words you want to find in order to use it.

You now know several ways to get around in HyperCard:

- click buttons with the Browse tool
- make choices from the Go menu
- search for a specific word using the Message box

Changing text

In this section you'll change the information on one of the cards. (In the next section you'll personalize the Address stack by putting in the names and phone numbers of people you know.)

- **Use the Message box to reach a card; then change the card:**

1. **Choose Find from the Go menu.**

   When the Message box is already visible, choosing Find resets the Message box, highlighting anything you've typed between quotation marks.

2. **Type `Scribble` and press Return.**

   The beach ball spins while HyperCard looks for a card with the word "Scribble" on it. (Figure 1-9 shows the card.)

3. **Select the name "Throckmorton" by dragging across it.**

   Dragging is a standard Macintosh technique that you're probably already familiar with: Position the I-beam pointer at the beginning of the word. Press and hold the mouse button while you "drag" the pointer across the word. Release the mouse button at the end of the word. If you've done this successfully, "Throckmorton" is highlighted.

4. **Type the name `John`.**

   The new name replaces the old one.

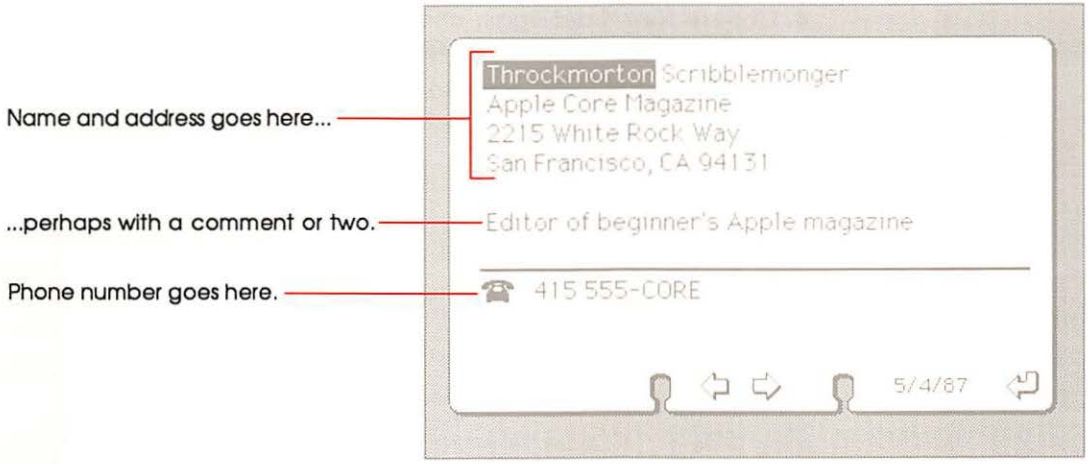


Figure 1-9
Changing an address card

You can select any text (except Paint text, described in Chapter 6) by dragging. Then type new text to replace it.

For more details on editing text, see the section on the Edit menu in Chapter 6.

Adding a card

You can personalize all the cards in the Address stack by editing out the old text and adding new text. But you'll probably find it easier to create new cards to hold your information. You add a card to any HyperCard stack by choosing New Card from the Edit menu. Try it now.

■ **Add a new card to the Address stack:**

1. **Choose New Card from the Edit menu.**

   A new card appears, ready for you to add your own information. (See Figure 1-10.)

2. **Type your name and address.**

3. **Press the Tab key to move the insertion point to the phone number line, and type your phone number.**

   The Tab key moves you from field to field on a card in the Address stack. (A field is where you type text.) This card has three fields—name and address, phone number, and date.

4. **Choose New Card again and add the name, address, and phone number of some close friend.**

   Or, if you want to get down to business right away, type in contact information for your neighborhood pizza delivery restaurant or some other vital service.

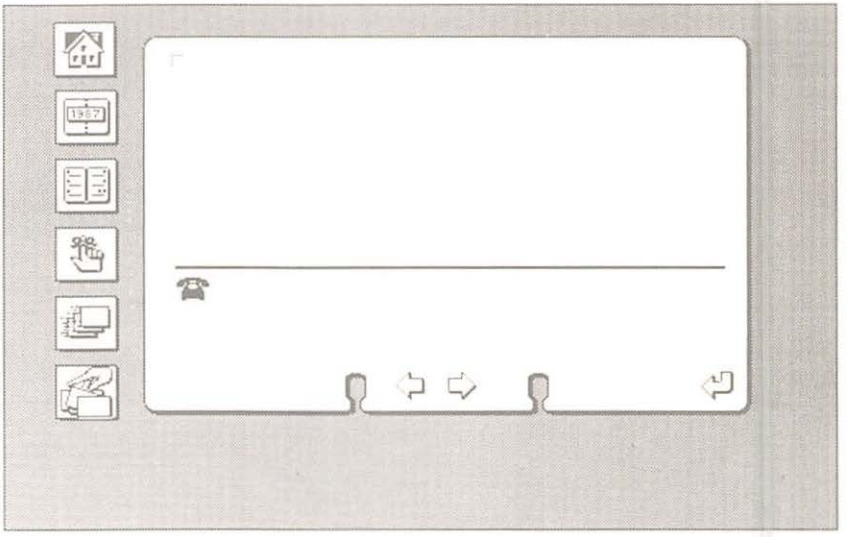


Figure 1-10
A new address card

Continue to add cards if you want. When you've finished, go on to learn about how cards are arranged in a stack.

- *Don't worry about alphabetical order:* You can create a new card wherever you want in the stack. In a few moments, you'll alphabetize the stack with the click of a button.

How cards are arranged in a stack

When you choose New Card, HyperCard adds a new card to the stack immediately after the one that's on the screen.

If all the cards in a stack are created at the same time, they appear in the order of their creation. If you choose New Card while you're near the middle of the stack, that's where the new card goes—in the middle of the stack.

Arrow to next card

- **Go through the stack one card at the time to see the stack's "natural order":**

1. **Get to the first card in the stack by choosing First from the Go menu.**
2. **Click the right arrow (the one that points to the right, next to the left arrow) to move through the stack, one card at a time.**

   Eventually you'll come to the new cards you created. (Most cards in the stack are alphabetized; your cards will probably be out of order.)
3. **Keep clicking the right arrow until you come back to the first card in the stack.**

   Think of the cards in a stack as being looped on a ring; when you reach the end, you start over again. (See Figure 1-11.)

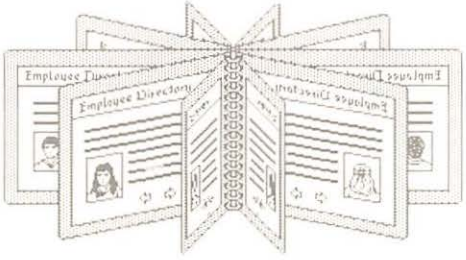


Figure 1-11
Cards ringed in a stack

Sort button

4. **Sort the stack by clicking the Sort button.**

   A dialog box appears with buttons for sorting by first name or last name. (See Figure 1-12.)

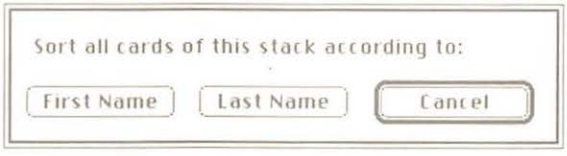
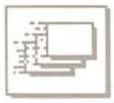


Figure 1-12
Sort dialog box



Quick View button

5. **Choose Last Name to sort alphabetically by last name.**

   The beach balls spins while HyperCard completes the sort.

6. **Go through the stack quickly by clicking the Quick View button.**

   (Click the mouse to stop the display.) You'll see the new cards you added sorted into their proper alphabetical place.

❖ *Getting rid of unwanted cards:* The Address stack comes with a number of sample cards. You can eliminate the cards you don't want: move to an unwanted card and choose Delete Card from the Edit menu.

Important You don't have to save your changes; HyperCard does it for you automatically. As a result, there is no Save command in HyperCard. You'll read more about this in Chapter 6.

Explore the Help stack

Before you read any more of this book, explore the Help stack, HyperCard's ever-ready help system.

■ **Choose Help from the Go menu to get to the Help stack.**

(See Figure 1-13.)

The Help stack briefly explains all of HyperCard's features. It's not only an extremely useful information source that's always available, but also an excellent example of the kinds of things you can do with HyperCard.

To use the Help stack, click one of the tabs along the card's bottom. (Each tab is actually a button.)

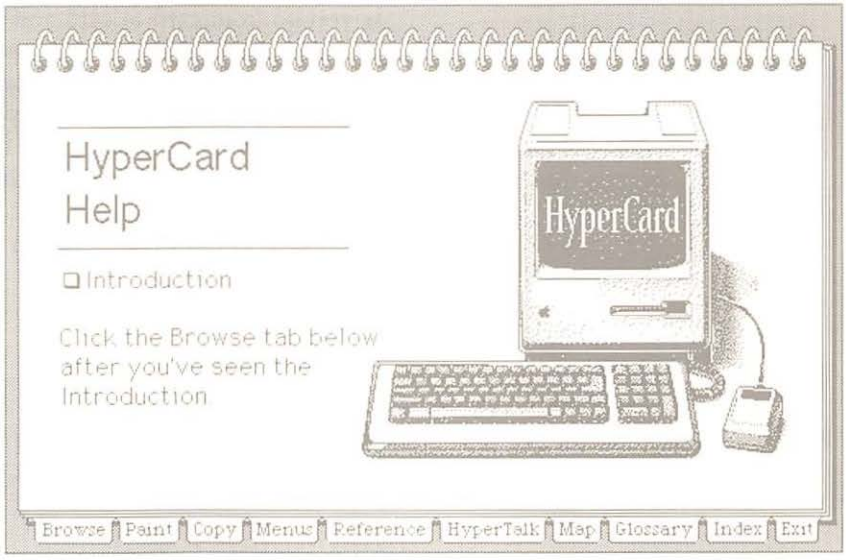


Figure 1-13
Help stack's first card

Click the Exit tab at the bottom of a card when you've finished using Help; you'll return to the Address stack at the card that was on the screen when you chose Help.

Recent: Seeing where you've been

When you used the Address stack, you saw how cards are arranged in a stack—one after the other in a loop, as if they're held together by a ring. You clicked the left and right arrows to move from card to card.

When you chose Help from the Go menu to get to the Help stack, and later when you pressed the Exit button to come back to the Address stack, you saw that you can move between stacks as easily as you move between cards.

As you go from card to card and stack to stack, HyperCard automatically keeps a record of where you've been. **Recent** shows (in miniature) up to the last 42 cards you looked at. It's a great place to go when you need to retrace your steps. (When you've passed through more than 42 cards, the top row of Recent rolls off to make room for a new row of cards at the bottom.)

- **Choose Recent from the Go menu.**

  (See Figure 1-14.)

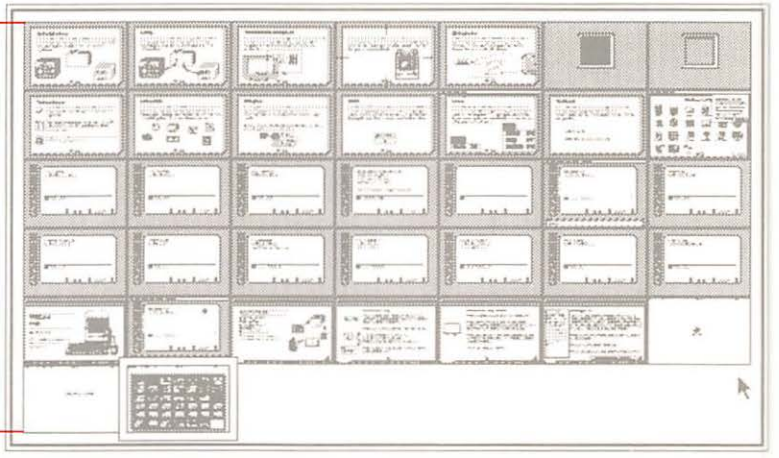


Figure 1-14
Recent

❖ *Recent shows what you've seen:* A stack might have hundreds of cards in it, but if you looked at only three cards in that stack, Recent shows only the three cards you looked at.

You can go directly back to any card represented in miniature in Recent. Try it now.

■ **Go directly to a card shown on Recent:**

1. **Click any card's miniature picture.**

   (Each picture is actually a button.) You immediately go to that card.

2. **Choose Recent again on the Go menu.**

   A rectangle encloses the image of the card you went back to.

3. **Click the image of the card you were on when you first chose Recent.**

What you've learned so far

In the short time you've used HyperCard, you've learned quite a lot. Among other things, you know

- □ how to use the Address stack
- □ how to get from card to card and stack to stack using the Browse tool
- □ how cards are arranged in a stack
- □ how to see where you've been, and how to go back there
- □ how to search for text
- □ how to use the Home card as your base of operations
- □ how to use several menu commands

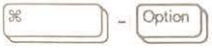
You already know enough to use most of the stacks that come with HyperCard and that are available for sale and for trade. (See "Where to Get HyperCard Stacks" in the Preface for some specific places to get more stacks.) Most stacks that require further instructions have a card or two telling you what you need to know.

How to get there from here

Here's a quick summary of the ways you've seen so far to find your way around HyperCard. They all come in handy at one time or another.

Browse tool

Go menu



Browse tool — Click buttons with it to move to other cards.

Home — Choose Home from the Go menu to reach this graphical directory of stacks; then click the button for the stack you want to go to.

Recent — Choose Recent from the Go menu for a pictorial summary of cards you've seen; then click the picture of the card you want to go to.

First — Choose First from the Go menu to get to the first card in a stack.

Last — Choose Last from the Go menu to get to the last card in a stack.

Find — Choose Find from the Go menu; then type what you want to find and press Return.

❖ *Not sure where the buttons are?* Hold down the Command and Option keys at the same time, and HyperCard lets you peek at buttons on a card.

What to do next

You can continue to work with the Address stack; you can go on to explore other stacks (Appendix B has a descriptive list of all the stacks that come with HyperCard); or you can go on to Chapter 2 for tutorials on customizing stacks to your own liking.

To explore more stacks or to go on to Chapter 2, be sure to start from the Home card.

■ **Go back to the Home card.**

You go back to the Home card by choosing Home from the Go menu. (You'll learn more about the Home card in Chapter 3.)

❖ *Another way to get Home:* Anytime you see a picture of a house on a card, you can click the house to go to the Home card.

Chapter 2

Customizing

Sometimes the way a stack looks isn't to your liking. The picture you see on a particular card isn't suited to your purposes, or a field is in an inconvenient place or its text is in a font or style that you don't like. This chapter shows you how to use HyperCard's features to customize cards and stacks.

❖ *Customizing isn't required:* You don't have to customize a stack to use it. These tutorials are for people who enjoy modifying things to meet their specific tastes. It's OK to leave stacks as they are.

This chapter has two tutorials. The first, "Painting," goes over some of HyperCard's features for editing pictures. You'll learn how to

- copy pictures from one card to another
- edit the pictures you copy
- create new pictures using HyperCard's painting tools

The second tutorial, "Authoring," includes the basic elements of stack creation. You'll learn how to

- create new stacks
- copy pictures, buttons and fields from existing stacks to your new stack
- Move buttons around on a card

The tutorials are separate. If you aren't interested in authoring yet, just do the Painting tutorial and go on to explore HyperCard.

Painting

HyperCard provides a variety of tools for changing the way a card looks. Chief among these are the Paint tools; you use them to create and to change pictures.

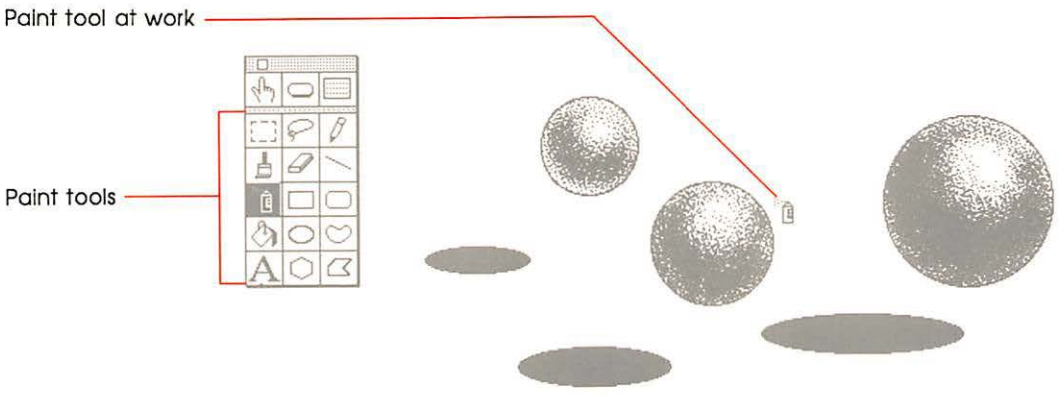


Figure 2-1
Paint tool at work

Setting user level to see the Tools menu

You choose the tool you need from the Tools menu. To see the Tools menu, you must tell HyperCard you're ready to use it. (HyperCard keeps menus out of sight until you need them.)

You tell HyperCard that you're ready to work with new tools by changing your **user level** on the User Preferences card. It's the last card in the Home stack.

■ **Move to the User Preferences card of the Home stack:**

1. **Start from the Home card.**
2. **Choose Last from the Go menu.**

   The Last command brings you to the last card of the current stack. The User Preferences card appears. (See Figure 2-2.)

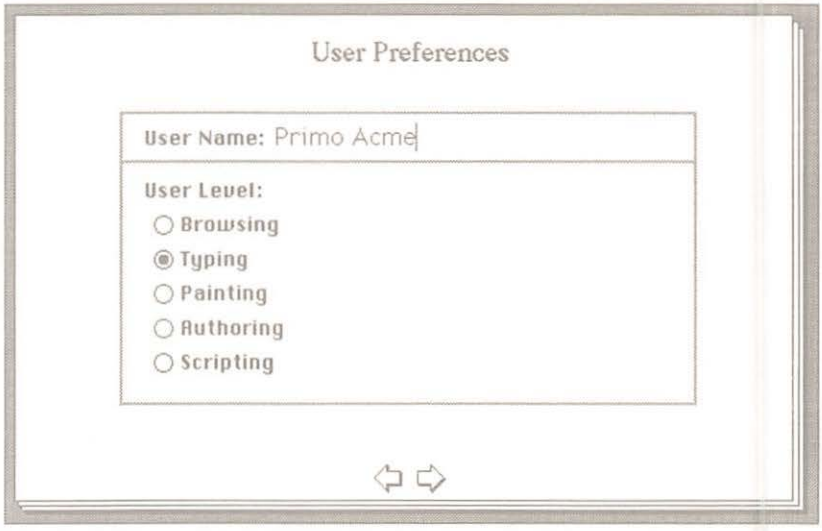


Figure 2-2
User Preferences card

HyperCard has five user levels. Each level incorporates everything from previous levels, plus adds new abilities. When you first start HyperCard, you're at the Typing level. At this level you can wander through HyperCard's stacks and do searches, and you have the ability to make changes to text.

Now you need to be able to use the Paint tools—an ability that comes with the next level.

- **Click the button labeled Painting.**

  (HyperCard stays at your new level until you change it, even if you quit HyperCard and restart.) A new menu appears in the menu bar.

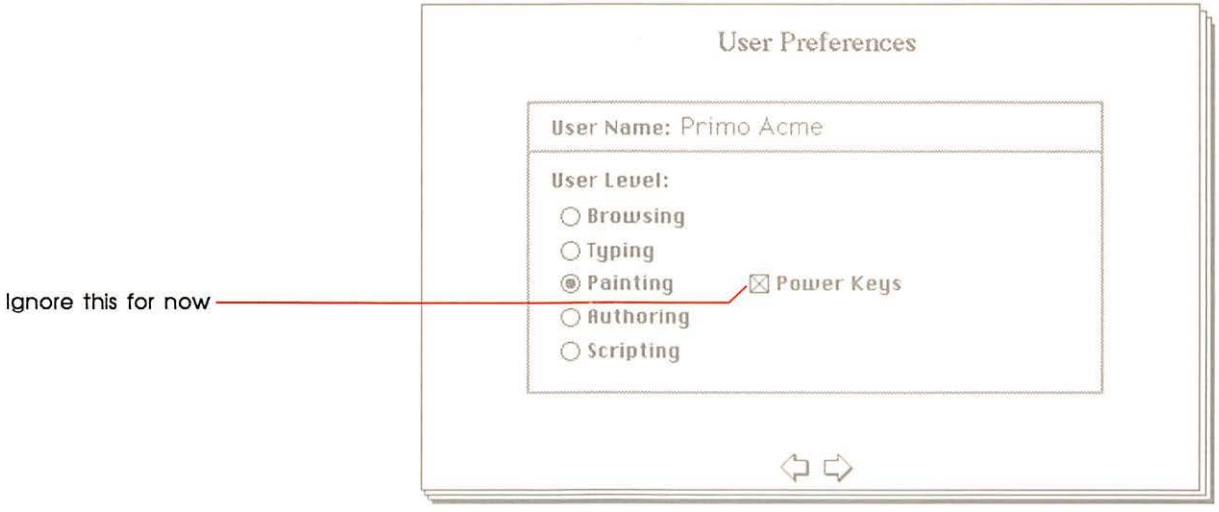


Figure 2-3
Changing user levels

Changing the way a card looks

You use the Paint tools on the Tools menu to change a card's picture.

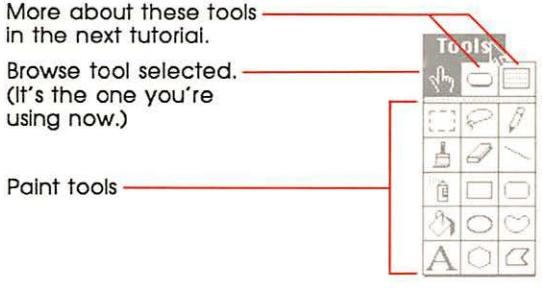


Figure 2-4
Paint tools

HyperCard comes with a stack specifically included for you to practice your painting on, the Quotations stack. You'll go to this stack using a command that's new to you—the Open Stack command.

■ **Get to the Quotations stack:**

1. **Choose Open Stack from the File menu.**

   The directory dialog box appears, letting you select the stack you want to work with.

2. **Select Quotations and click Open.**

❖ *A quick diversion:* The Quotations stack is a collection of aphorisms and famous sayings. Guess the author of the quotation; then click the "Who says?" button to see if you were right. (Click it again to hide the answer.) When you want to stop the game (or you run out of quotations), come back here.

Copying a picture from another card

Cards with pictures on them are visually more interesting than cards with just text. You can add a picture to a card by copying an image from another card, or by drawing a picture yourself.

Copying an image is a simple operation. To get some practice doing it, you'll copy the images of a loaf of bread and a jug of wine from a card in the Art Ideas stack; then you'll paste the images onto a card in the Quotations stack.

■ **Copy an image from one card to another:**

1. **Start with the card in the Quotations stack that reads "A book of verses underneath the bough."**

   To find it, Choose Find from the Go menu, type `book of verses`, and press Return. Your next step is to go to the Art Ideas stack to copy pictures.

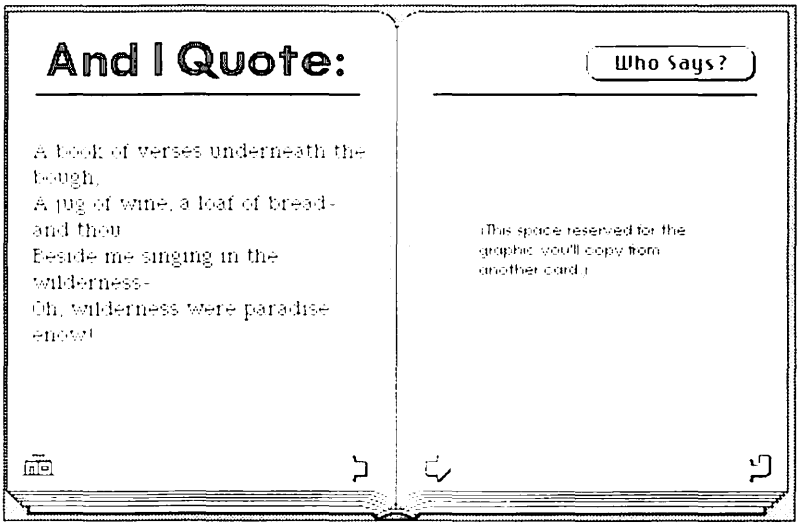


Figure 2-5
Book of verses card

2. **Choose Open Stack from the File menu.**

   The Directory dialog box appears so that you can choose the stack you want to open. The Art Ideas stack is in the Idea Stacks folder on the HyperCard Ideas disk. If you're using HyperCard from 3.5-inch disks, you'll have to replace the Help disk currently in the drive with the HyperCard Ideas disk. To do that, click the eject button on the Directory dialog box and swap disks.

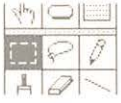
3. **Select Art Ideas and click Open.**

   You're now at the first card of the Art Ideas stack.

4. **Move to the card labeled "Restaurants, Food, Recipes."**

   To get to this card, choose Find from the Go menu, type the word Food, and press Return.

Figure 2-6
Food card



Selection rectangle

5. **When you find the picture you want, choose the Selection tool on the Tools menu.**

   The Selection tool lets you select a part of a picture to work on. (When you choose this tool, some new menu titles appear on the Title bar; ignore them for now.)

6. **Drag diagonally across the images of the loaf of bread and the bottle of wine to select them; then release the mouse button.**

   The dotted lines move when you release the mouse button to show that the selection is active. Don't worry if you select too much; you can edit it later. If you make a mistake, choose Undo from the Edit menu and start dragging again.

Figure 2-7
Selecting a picture

7. **Choose Copy Picture from the Edit menu.**

   What you copy goes onto the Clipboard, a holding place for cut or copied text and graphics.

8. **Choose the Browse tool from the Tools menu.**
9. **Choose Recent from the Go menu.**
10. **Go back to the Quotation card by clicking its image on Recent.**

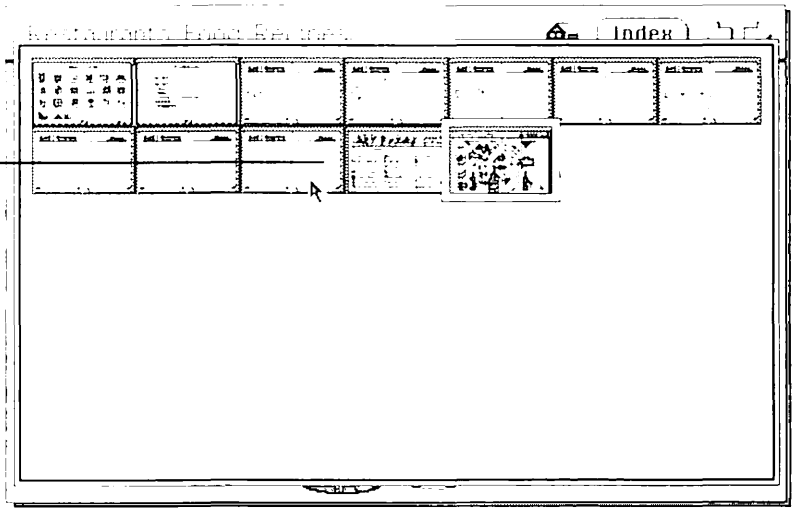


Figure 2-8
Going back to the Quotations stack using Recent

11. **Choose Paste Picture from the Edit menu.**

    The material you copied to the Clipboard is pasted to the Quotation card. (See Figure 2-9.)

12. **Drag the pasted picture where you want it to go; then click anywhere outside the picture to set it in position.**

    To drag the picture, move the pointer anywhere inside the selected area, hold down the mouse button, and move the mouse. If you make a mistake, choose Undo from the Edit menu.

13. **Experiment with the Paint tools to touch up your picture.**

    (See "Some Paint tool tips" in the next section.) It's OK to make a mess; that's what this stack is for. You can't hurt any other stack while you're in this one.

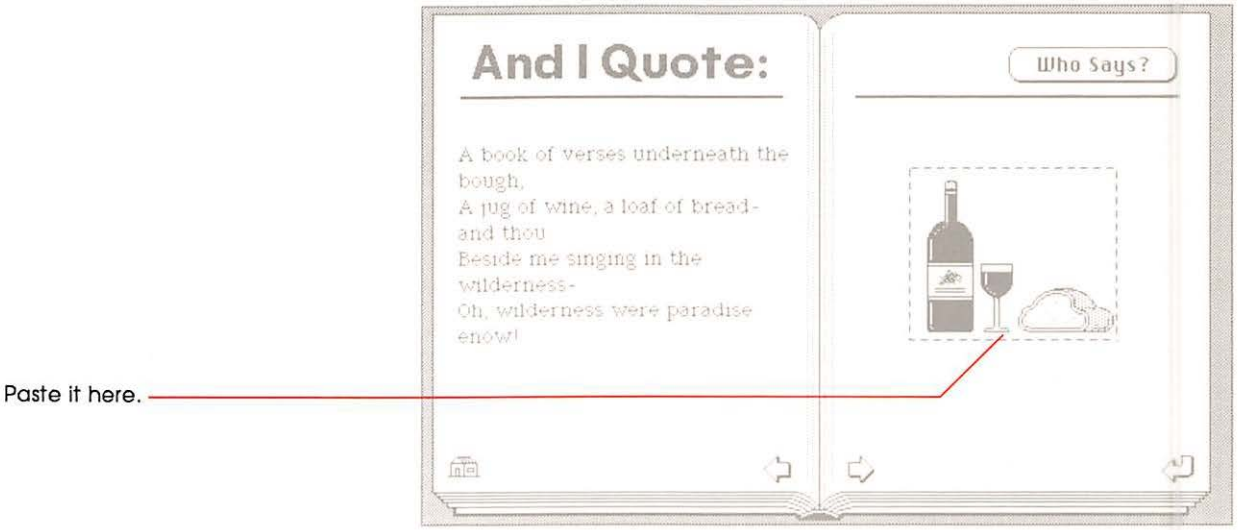


Figure 2-9
Pasting a copied image

You can paste as many pictures onto a card as you want. Use any of the Paint tools to modify the picture, or paint your own picture from scratch.

Using the Paint tools

This is a great time to experiment with the Paint tools.

- **Add a new card or two to the Quotations stack:**

1. **Select the Browse tool.**
2. **Choose New Card from the Edit menu.**

   A new card appears.
3. **Type your favorite quotation on the left page.**

   Press Tab to set the insertion point at the top of the page.
4. **Click the Who Says button.**

   An empty box appears. (It's actually a **field**—a place to hold text—ready for you to type into.)
5. **Click inside the box and type the name of the quotation's source or author.**

   When you've finished typing, click the Who Says button again to hide the box.

6. **Construct a picture on the right page using the Paint tools.**
(See "Some Paint tool tips," below.) You can borrow from other stacks to do it. Don't worry if your name isn't Rembrandt; this is all just for practice (and for fun).

Some Paint tool tips

To select a Paint tool, just drag to the one you want on the Paint menu and then experiment. Most tools start to work when you press down the mouse button and drag, and stop when you release the mouse button. Here are some tips on using Paint tools:

- Select a pattern from the Patterns menu to use with the Brush, Bucket, and Spray tools.
- Choose Brush Shape from the Options menu and click the shape you want. Each shape gives a different effect, so experiment with them all.
- Use the Brush or Pencil for freehand work.
- The Eraser—erases.

This draws thin, free-form things.

Draw lines with this.

This erases mistakes.

Double-click this to choose a new brush shape.

Use this to fill in a closed shape you've already drawn.

The more you spray, the more the pattern shows.

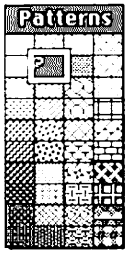


Figure 2-10
Using the Paint tools and Pattern menu

Experiment with the other tools to see what they do.

- *Convert menus to palettes:* You can "tear off" both the Tools menu and the Patterns menu so that you can have constant access to them as you work. Just drag through them, past the bottom or off to one side; then leave them where you want them. When they get in your way, move them by dragging their top bars. Click their close boxes to make them go away.

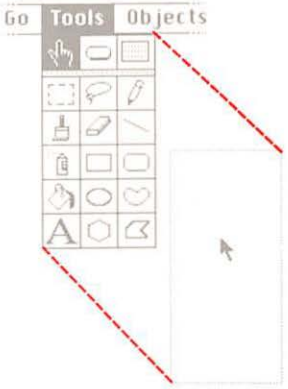


Figure 2-11
Tearing off a menu

Experiment time

Experiment for as long as you want with the Paint tools. Make a mess on the screen. Create new quotation cards or modify old ones. Practice copying graphics from other stacks.

- *A quick cleanup trick:* If your screen gets really messy and you want to clean it up, double-click the eraser on the Tools palette: Everything you painted gets erased. If you double-click by mistake, choose Undo from the Edit menu.

You can read more about the Paint tools and what they do in the "Tools Menu" section of Chapter 6, throughout Chapter 5, and in the Menus section of the Help system.

■ **Go back to the Home card when you've finished experimenting.**

When you're ready, go on to the final lesson, Authoring, and learn how to create stacks of your own.

Authoring

You've learned how to get around in HyperCard, and you've had some experience in changing text and graphics on a card. In this section you'll learn HyperCard's real power—changing how things work.

❖ *You don't have to be an author:* It isn't necessary for you to learn how to change a stack radically in order to use HyperCard effectively. You already have all the information you need to get a great deal out of HyperCard. The rest of this chapter is for you if have special needs that the stacks that come with HyperCard don't meet, or if you like to do things your own way.

You'll need to change your user level to become a stack author.

■ **Change your user level to Authoring on the User Preferences card:**

1. **Choose Home from the Go menu.**

   If you've come here directly from the previous tutorial, the Home card is probably already on the screen.

2. **Choose Last from the Go menu.**

   You move to the User Preference card, the last card in the Home stack.

3. **Click the button labeled Authoring.**

   A new title—Objects—appears in the menu bar. (See Figure 2-12.) You're now at the highest level that this guide takes you to.

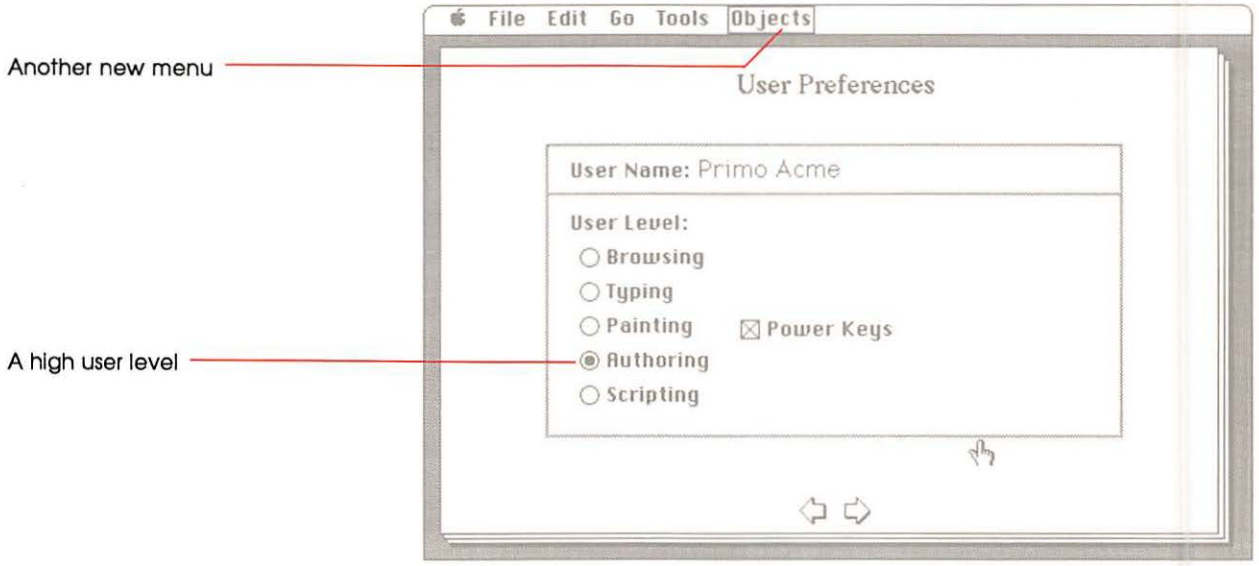


Figure 2-12
Moving up to Authoring

Before you continue, go back to the Home card.

- **Choose Home on the Go menu.**

❖ *A browsing shortcut:* You can get to the Home card from User Preferences by clicking the right arrow (the one pointing to the right, next to the left arrow at the bottom of the card). Here's why: Home is the first card in the Home stack, and User Preferences is the last card in the stack. Because you can think of the cards in a stack as being on a ring, you can also think of the first card in the stack as being after the last card. Try it.

Making a new stack from an existing one

You can make a new stack based on an old one.

When you make a new stack based on an existing one, the new stack takes on the basic characteristics of the current card's background.

In this exercise, you'll make a new stack based on the To Do card. (You type all the things you've got to do today on the To Do card.)

To Do icon

- **Move to the To Do card by clicking its icon.**

The card in Figure 2-13 appears.

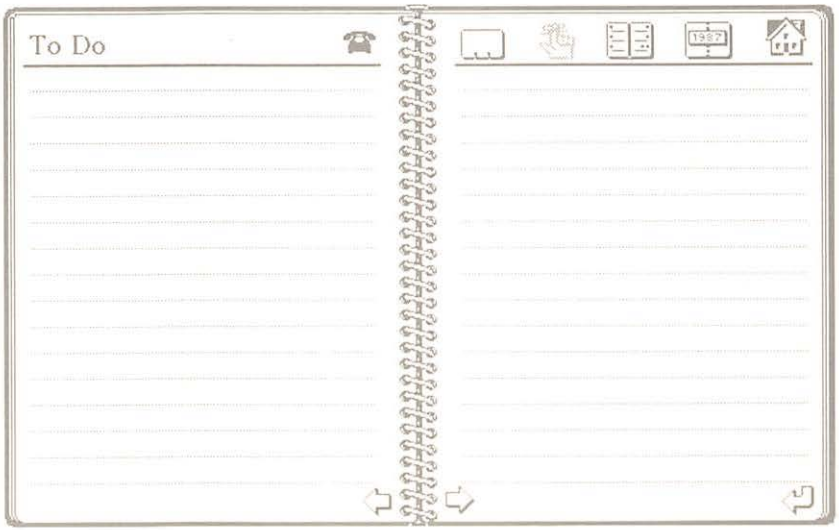


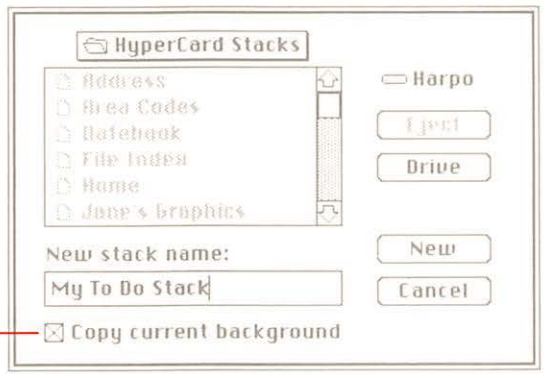
Figure 2-13
A To Do card

You'll use the basic design of this card for your new stack.

- **Create a new stack based on the To Do stack:**

1. **Choose New Stack from the File menu.**

   The directory dialog box appears, asking you to name the new stack. (See Figure 2-14.)



You use the current stack's design for the new stack if this box is checked.

Figure 2-14
Making a new stack

2. **Type `My To Do stack` and click New.**

   When you choose New Stack from the File menu, you can use the basic design of the card that's on the screen for the new stack. (You don't copy any of the stack's data, just the stack's template.)

You now have a new stack, ready for you to modify and to fill with information. (See Figure 2-15.)

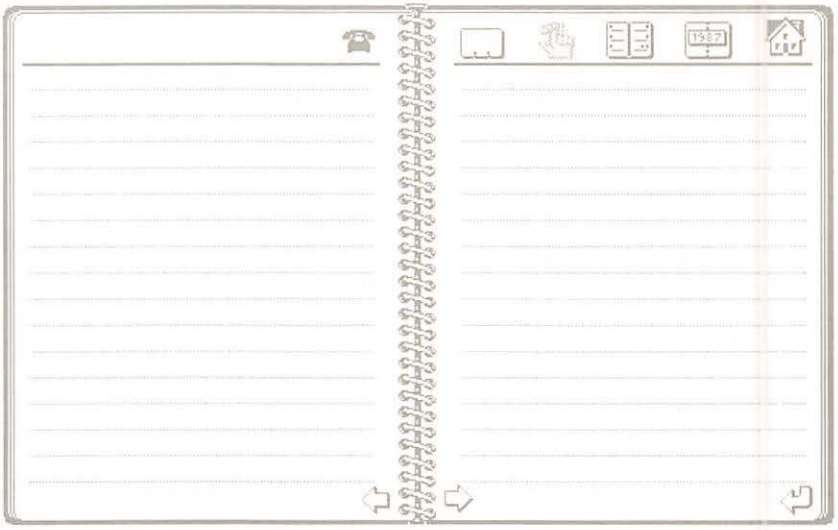
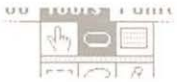


Figure 2-15
First card in new stack

Moving buttons

Customizing a stack is a matter of deciding what you like and don't like about a design, and then changing the design by moving a button around.



Button tool (in Tools menu)

- **Move the Telephone button to the top-left side of the page:**

1. **Select the Button tool from the Tools menu.**

   (It's the tool in the middle of the top row.) A box appears around all the buttons on the card.

2. **Move the pointer to the center of the Telephone button, and press and hold the mouse button.**

3. **Drag the Telephone button to the left until it aligns with the left edge.**
4. **Release the mouse button.**

   The moving dotted line around the button lets you know the button is still selected. (When you click another button or when you select another tool, the dotted line goes away.)

The top of the card should look like Figure 2-16.

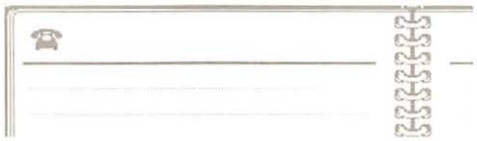


Figure 2-16
To Do card with Telephone button moved

When you move a button, the only thing that changes is its position; what the button does remains the same.

Deleting buttons

Sometimes the buttons you find in a design don't do what you want. For this exercise, assume that the only button you want at the top right of the card is the Home button.

- **Delete all but the Home button from the top of the card:**

1. **Select the Button tool from the Tools menu.**

   If you've been following along, you've already selected this tool.
2. **Click the Address stack button.**

   The box around the button changes to marching ants.
3. **Choose Clear Button from the Edit menu.**

   The button disappears.
4. **Repeat steps 1 and 3 for the rest of the buttons you want to remove.**

Copying buttons from another stack

In the Painting tutorial, you saw how to borrow pictures from other cards to use on your own cards. You can borrow buttons in the same way.

Button Ideas button

■ **Add a Help button by copying it from the Button Ideas stack:**

1. **Go to the Home card.**

   You can select the Browse tool, then click the Home button on the top of the card you're on.

2. **Click the Button Ideas icon.**

   (You might have to swap disks to get to this stack.) The card that appears is actually an index.

3. **Click Text Buttons.**

   The card in Figure 2-17 appears.

4. **Select the Button tool.**

   Now you're ready to select a button and copy it.

5. **Click the button marked Help.**

   When you're using the Button tool, you click a button to select it rather than to make it carry out an action.

6. **Choose Copy Button from the Edit menu.**

7. **Get back to your To Do card using Recent from the Go menu.**

   Your To Do card reappears. Now you can paste the button you just copied.

8. **Choose Paste Button on the Edit menu.**

   The button you just copied appears.

9. **Drag the button where you want it to be.**

   A good place for it is next to the Home button. (See Figure 2-18.)

10. **Click the Browse tool to set the button in place.**

    Whenever you need help, you can click the Help button. (Try it out, if you like. Press the Exit button at the bottom of any Help card to get back.)

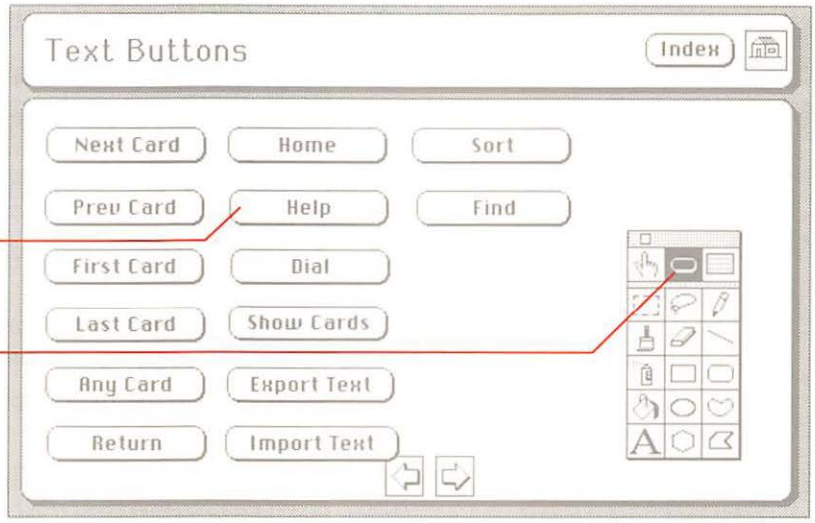


Figure 2-17
Assorted buttons

Changing a field's size and position

Field tool

You add text to a card by typing into fields with the Browse tool selected. The new To Do stack has three fields on it. To see them, click the Field tool on the Tools menu.

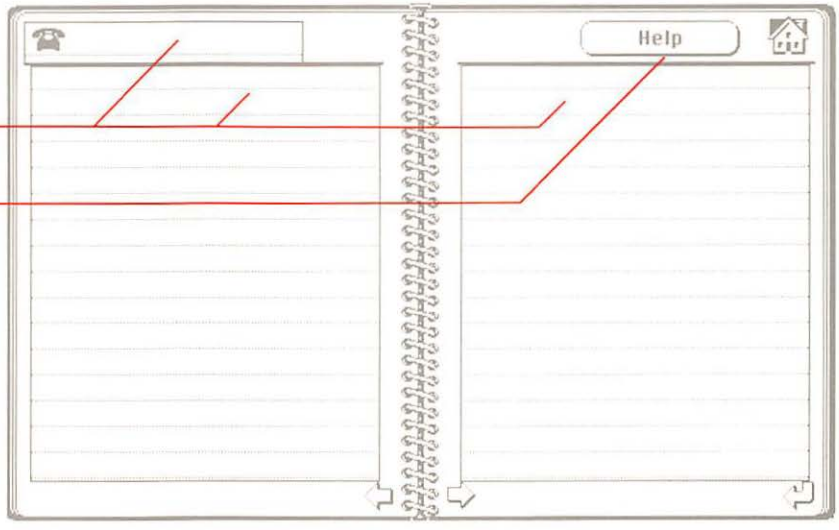


Figure 2-18
Help button pasted, fields visible

You can change the size of a field or move it easily.

- **Change the size of the field on the right:**

1. **With the Field tool still selected, click anywhere within the card's right field to select the field.**
2. **Drag the lower right corner of the field to the left to make the field narrower.**

   Make it about 1/3 the width that it is now.

- **Move the field you just changed by placing the pointer in its center and dragging the field to the right.**

  Move it close to the right edge. (See Figure 2-19.)

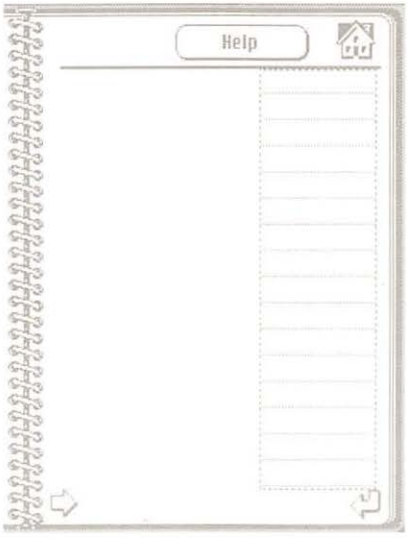


Figure 2-19
Shrinking and moving fields

Copying a field

Copying a field is as easy as moving one. And as long as you've got the room . . .

- **Make a copy of the field on the right:**

1. **Select the field on the right by clicking it.**

   You know it's selected because it's surrounded by a moving dotted line.

2. **Choose Copy Field from the Edit menu.**
3. **Choose Paste Field from the Edit menu.**

   The pasted field is lying over the original.

4. **Drag the copied field to the left.**

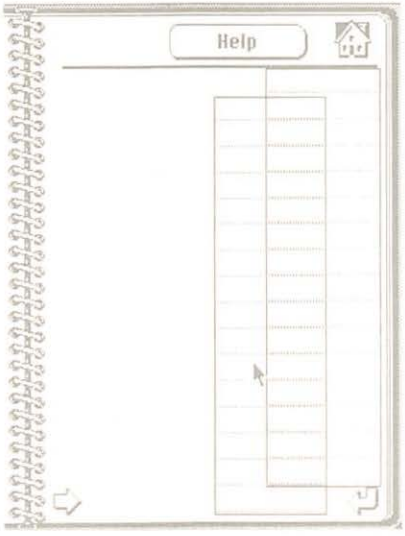


Figure 2-20
Copying a field

You can also copy fields from other cards, just as you can copy buttons and pictures.

Cards versus backgrounds

Background is the name for common elements shared by a number of cards.

A number of cards can share the same **background.** When you chose New Stack to create the stack you've been working on, you copied the background of the card that was on the screen at the time. Figure 2-21 shows a card with a distinct background part.

This is what you'd see on the screen—a combination of the background and the part unique to a given card.

All this is on the background.

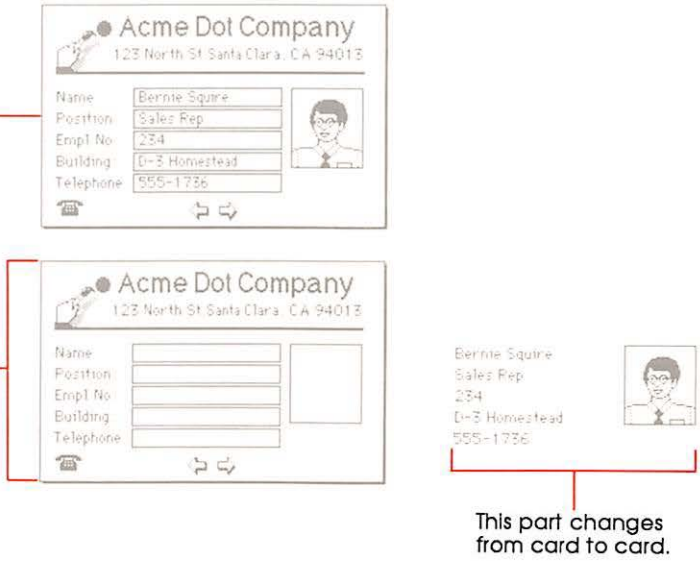


Figure 2-21
A background shared by a number of cards

Buttons, fields, and pictures can live on the background of a card, or on the card itself. When they're on the background, these objects—buttons, fields, and pictures—are shared by all cards associated with that background. When they're on the card, they're specific just to that card.

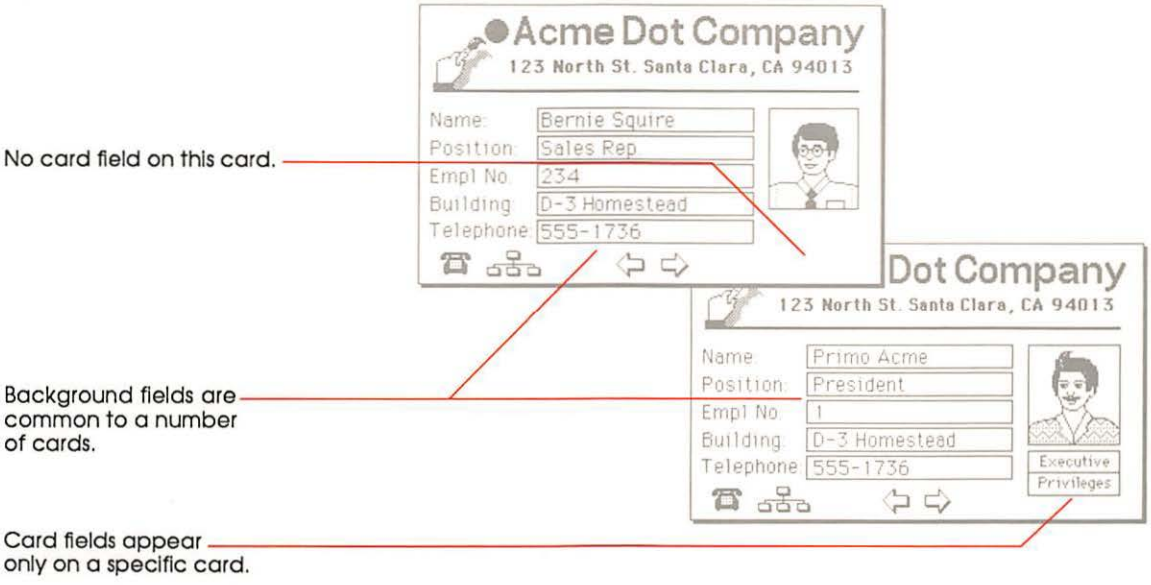


Figure 2-22
Background versus card field

To see what this is about, you'll first have to make a new card for the stack you've been working on.

- **Make a new card for the stack by choosing New Card from the Edit menu.**

You'll notice that the Help button you pasted appears just on the first card—it wasn't duplicated when you chose New Card; and the field you duplicated was only duplicated on the original card. You created a **card field** and a **card button,** objects that work only on a single card; contrast that with **background fields** and **background buttons,** objects common to all cards that share a particular background. (With the Browse tool selected, click the left arrow and right arrow buttons at the bottom of the card to go back and forth between cards.)

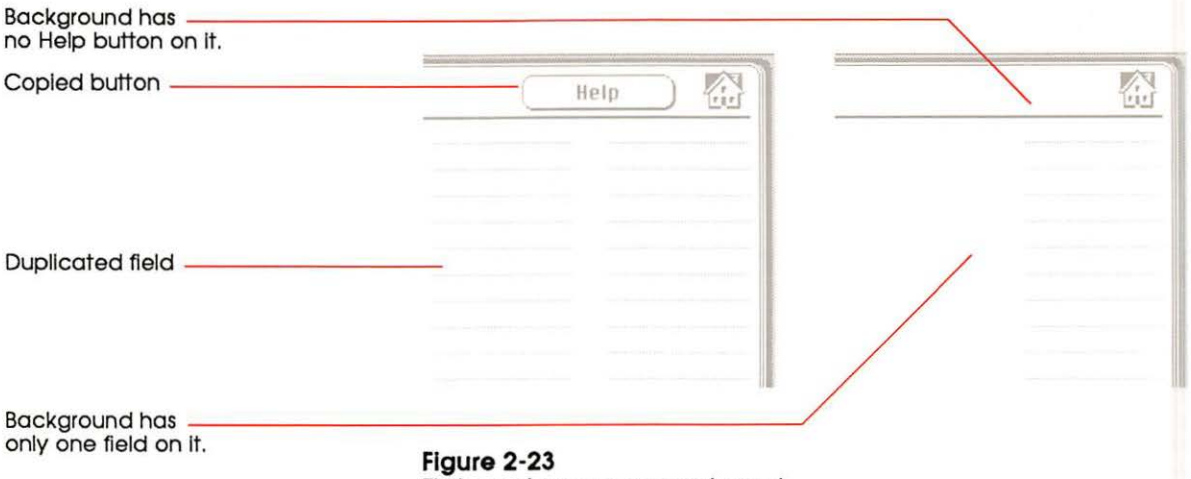


Figure 2-23
First card versus second card

The card on the right in Figure 2-23 is the one you just made with New Card. Its features all come from the background.

- **Look at the background for these cards:**

1. **Be sure you're on the first card in the stack by choosing First from the Go menu.**
2. **Choose Background from the Edit menu.**

   The background appears. (See Figure 2-24.)

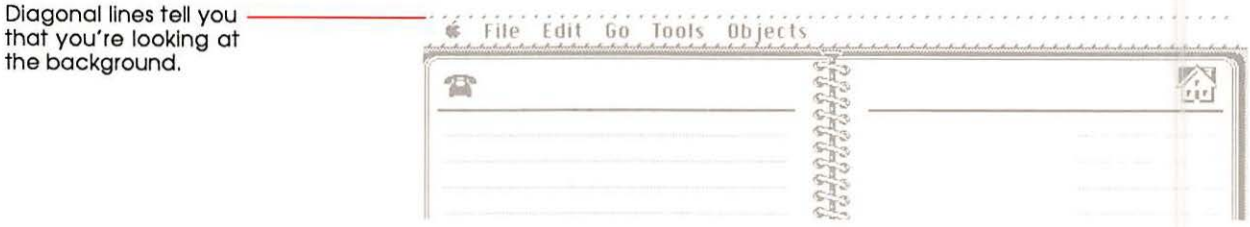


Figure 2-24
Background

If you switch back and forth between the background and the card by choosing the Background command several times, you'll see the button and the extra field disappear and reappear. (The Background command is like a push-button light switch—if you're looking at the card when you choose it, you switch to the background; if you're looking at the background when you choose it, you switch to the card.) You can tell when you're in the background because the menu bar in the background has diagonal stripes.

❖ *You can edit background fields and buttons from the card:* You can make an existing background field or button smaller or larger or delete it but you can't create new background fields or buttons unless you're in the background. That's why the field you made smaller remains smaller when you look at the background, and the buttons you deleted remain deleted.

To make a field, button, or picture common to a number of cards, create it (or paste it or duplicate it) in the background.

You can move the duplicated field and the Help button from the first card to the background. When you do that, the extra field and the button will show on both cards, and on any new cards that you create.

■ **Move the duplicated field and the Help button to the background:**

1. **With the Field tool selected, click inside the duplicated field.**

   Be sure you're on the card and not in the background—you shouldn't see any diagonal lines in the Menu bar.

2. **Choose Cut Field from the Edit menu.**

   The field disappears.

3. **Choose Background from the Edit menu.**

   The background appears—you see the diagonal lines again.

4. **Choose Paste Field from the Edit menu.**

   The field reappears, now part of the background.

5. **Choose Background from the Edit menu again.**

   You're back at the card—the diagonal lines in the Menu bar have disappeared.

6. **Select the Button tool and click the Help button.**

   You'll know it's selected because a moving dotted line surrounds it.

7. **Choose Cut Button from the Edit menu.**

   The button disappears.

8. **Choose Background from the Edit menu.**

   The background appears—you see the diagonal lines again.

9. **Choose Paste Button from the Edit menu.**

   The button reappears, now part of the background.

10. Choose Background from the Edit menu a final time.

You end up with all buttons and fields in the background. To prove it, create a new card.

- **Choose New Card from the Edit menu.**

  The new card will have two fields on the right side and a Help button at the top.

❖ *A final note about fields:* What you type on a field created in the background changes from card to card, although the field's size and position remains constant on all cards associated with that background. When you create a field on a card, the field stays just with that card—and, of course, so does what you type in it. Experiment by creating a few card fields in the stack you just created to see what happens.

Experiment for a while

Continue working on this stack for a while. Make all the changes you want. Don't worry about messing things up; this stack is just for practice.

- **When you've finished experimenting, go back to the Home card.**

Connecting to the Home card

You've read here and in the first chapter that Home is your base of operations. It makes sense, then, to put a button on the Home card that gets you to the stack you just made. In this final exercise, you'll create a new button for the Home stack, give it a name, and then create a connection to your new stack.

- **Create a link between the Home card and your To Do stack:**

1. **From the Home card, choose New Button from the Objects menu.**

   HyperCard selects the Button tool and a button named New Button appears selected in the middle of the Home card.

New Button button

2. **Choose Button Info from the Objects menu.**

   The dialog box in Figure 2-25 appears.

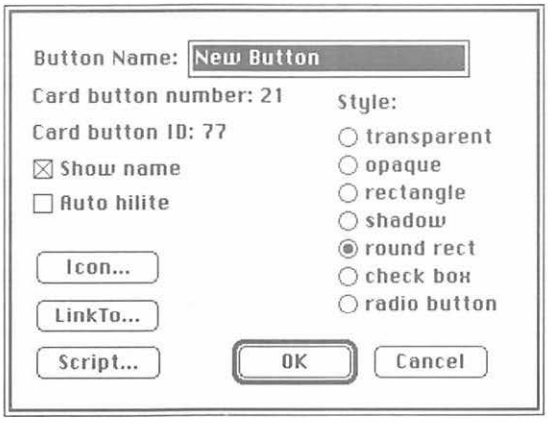


Figure 2-25
Button Info dialog box

3. Type `Things to do` into the Button Name box.

The new name replaces the old name, New Button. (You'll find details on the rest of this dialog box under "Button Info" in Chapter 6.)

4. Click LinkTo.

The dialog box in Figure 2-26 appears.

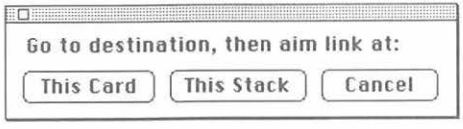


Figure 2-26
LinkTo dialog box

5. Choose Open Stack from the File menu.

The Directory appears.

6. Select My To Do Stack and click Open.

The first card in the stack you just created appears.

7. Click This Stack in the LinkTo dialog box.

HyperCard completes the link and returns you to the Home card.

8. Drag the new button to a convenient place on the Home card.

9. Test your new button.

To do that, first select the Browse tool; then click the new button. You immediately go to your new stack.

Where to go from here

This ends your tutorials on HyperCard's basics. You know enough now to get off to a great start. You can go on reading in this manual to learn more about HyperCard or you can go off on your own, browsing and editing as you like.

- To use the Help stack to learn more about tools:

1. Choose Help from the Go menu.

This gets you to the Help stack from anyplace in HyperCard.

2. Click the Menus tab at the bottom of the card.

You'll see the Menus card.

3. Click the Tools menu and explore.

To learn about a specific tool, just click its icon. (See Figure 2-27.)

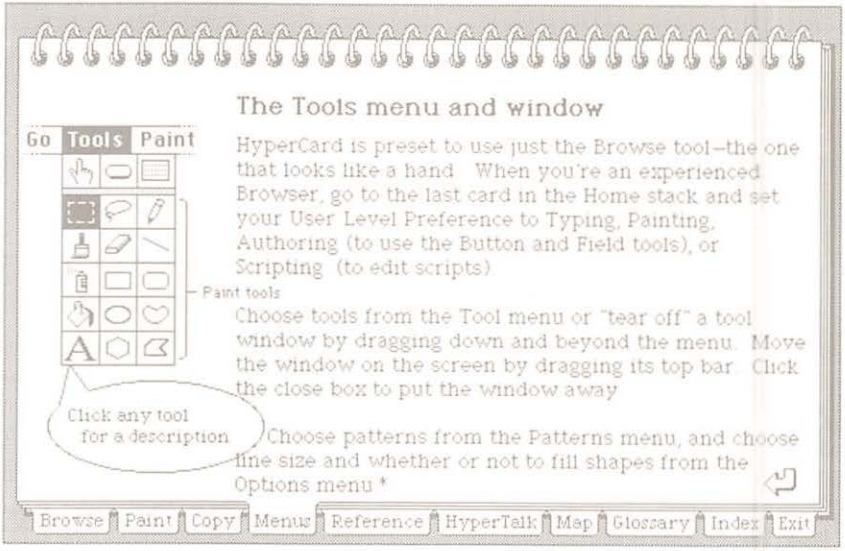


Figure 2-27
Exploring with the Help stack

Happy wandering!

Chapter 3

Home

Home is HyperCard's central stack. Each of its cards holds information vital to HyperCard's performance.

- The first card, Home, holds buttons that take you to the most important cards in your collection.
- Three search path cards tell HyperCard where to find applications, documents, and stacks that you use frequently.
- The User Preferences card lets you customize the way you interact with HyperCard.

Warning HyperCard will not operate without a Home stack. Do not delete the Home stack.

Home card

No matter what other cards and stacks you have, you always have Home. Most people use it as their starting place for moving around. You'll find the Home card most useful if you create a button on it linked to each new stack and to each of your favorite cards.

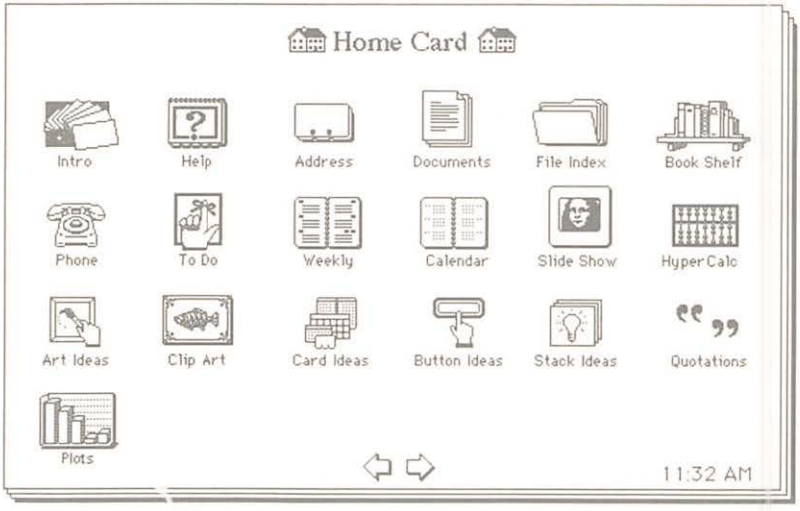


Figure 3-1
Home card

- *Creating a graphic button for Home:* To create a graphic button, first paint or paste a small picture on Home representing the new stack; then cover that picture with a transparent button linked to the new stack. Or you can use icons as buttons by clicking Icon in a selected button's Button Info dialog box and choosing from the icons that appear. You can also copy predesigned buttons from the Button Ideas stack. "Copying Buttons From Another Stack" and "Connecting to the Home Card" in Chapter 2, and "Icon" in Chapter 6, provide step-by-step instructions for these procedures.

For information on linking buttons, see "Button Info" in Chapter 6.

Search paths

A **search path** is the route HyperCard follows to retrieve a stack, application, or document. When you tell HyperCard to open a file—by clicking a button on the Home card, for example—HyperCard follows its own preset search paths to find the file.

- *Preset search paths:* HyperCard first looks for the requested file in the folder that's currently active; next it looks in the folder that the Help stacks are in; and then it looks on the root level of the directory—that is, on the current disk among the files that aren't in any folders. Finally, it checks the search path cards to see what route to follow.

If HyperCard can't find a file you ask for, it displays a dialog box. (See Figure 3-2.)

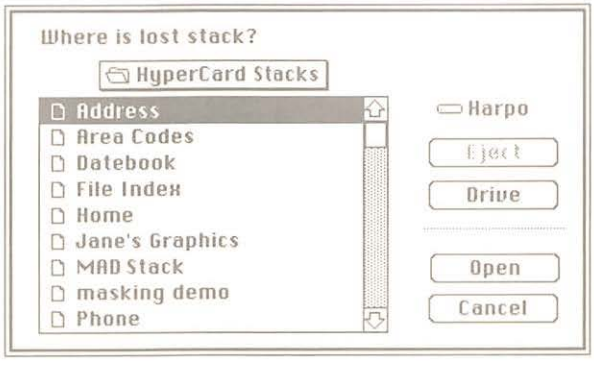


Figure 3-2
Dialog box for finding a file

As you click your way through the directory dialog box to locate a file, HyperCard records your path. Once you've located the file, HyperCard notes the volume and folder (and if necessary, subfolder) in which the file resides, and records it on the appropriate search path card in the Home stack. The next time you ask for that file, HyperCard will know where to look for it without having to ask you to find it.

Important HyperCard cannot work with a locked disk (or locked volume). Make sure that any disk you want to use is unlocked.

- *Occasional housecleaning:* HyperCard keeps a search path on record until you erase it. It's a good idea to erase a search path you use infrequently, freeing up that space on the search path card. To erase a search path, just select it and choose Clear from the Edit menu.

User Preferences

Set the User Preferences card to customize the way you interact with HyperCard.

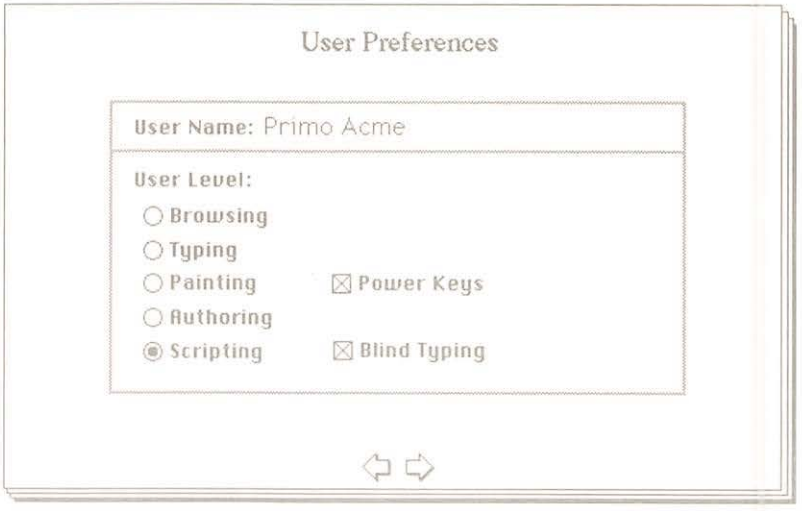
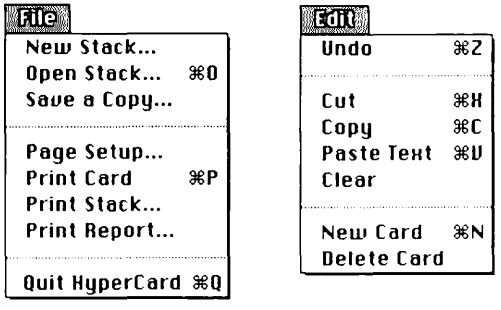


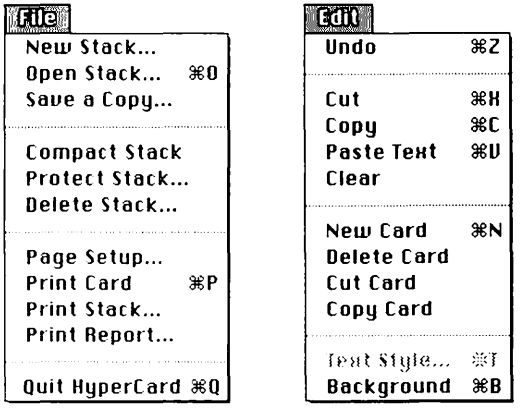
Figure 3-3
Setting preferences

Click the proper user level to match what you want to do with HyperCard. The higher the user level you choose, the more power HyperCard gives you:

Browsing	Short File and Edit menus (Figure 3-4), plus the Go menu. Use of the Browse tool.
Typing	Same as Browsing, plus ability to edit text in existing fields.
Painting	Same as Typing, plus full File and Edit menus (Figure 3-4), Tools menu (plus Paint, Options, and Pattern menus when a Paint tool is selected), use of all Paint tools (but not Button and Field tools), Power Keys option.
Authoring	Same as Painting, plus Objects menu, use of Button and Field tools.
Scripting	Same as Authoring, plus ability to type into Message box while it's hidden (if the "Blind Typing" option is chosen), plus ability to write and edit scripts.



Browsing and Typing get short menus.



Painting, Authoring, and Scripting get full menus.

Figure 3-4
Short and full File and Edit menus

You can set one level now and change it to a higher one later, when your HyperCard skills improve or when you feel comfortable experimenting with more advanced abilities.

- *User preferences and stack protection:* The preferences you set here apply in a general way to all HyperCard functions. The tools and commands you have at your disposal while you're using a specific stack, however, are based both upon the level you set on User Preferences and on the specific stack's protection level. When a stack is set for a different level of use than is set on User Preferences, the lower setting has precedence. (Lower means "closer to Browsing.") See "Protect Stack" in Chapter 6 for details.

For information about power keys, see "Power Keys" in Chapter 5 and Chapter 6.

For details about the Message box, see "Message" in Chapter 6.

For more information on scripts, see the *HyperCard Script Language Guide.*

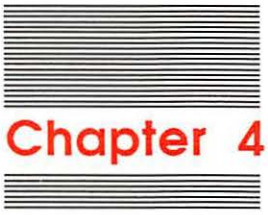
Ways to go Home

HyperCard provides several ways to get to the Home card:

- choose Home from the Go menu
- press Command-H (Press the Command key and, while holding it down, press H for Home)
- click the house icon that appears on most stacks
- choose Message from the Go menu, type `Go Home`, and press return.

All these methods work equally well.

The **Command key** is marked by a propeller-shaped symbol. On some Macintosh keyboards, the key also has an Apple symbol, and some Macintosh manuals might call it the **Apple key**. Both names refer to the same key.



Chapter 4

Text in HyperCard

HyperCard has two kinds of text: **Paint text** and **regular text.** You create Paint text using the Paint Text tool; you'll find details about it in Chapter 6. This chapter covers regular text.

Field tool

Creating regular text in HyperCard is a two-step process:

1. Use the Field tool to create the fields where text goes.
2. Use the Browse tool to type text into a specific field.

Browse tool

❖ *Watch your preference level:* To edit text in a field, you must be at the Typing level or higher on the User Preferences card in the Home stack. To create or change a field, you must be at Authoring level or higher.

In the section "Fields," you'll learn about the places where you type regular text. The section called "Creating Text" tells you about entering and editing text, and how to move it from one place in HyperCard to another.

Fields

Fields are the boxes in which you type text. You can create background fields and card fields. A **background field** appears on every card associated with a given background. It has the same size, shape, and position on every card; what changes from card to card is the text in a field. Fields can be empty in one card, but have text in another. A **card field** appears only on the card where you create it (although you can copy a card field, and then paste it onto any other card).

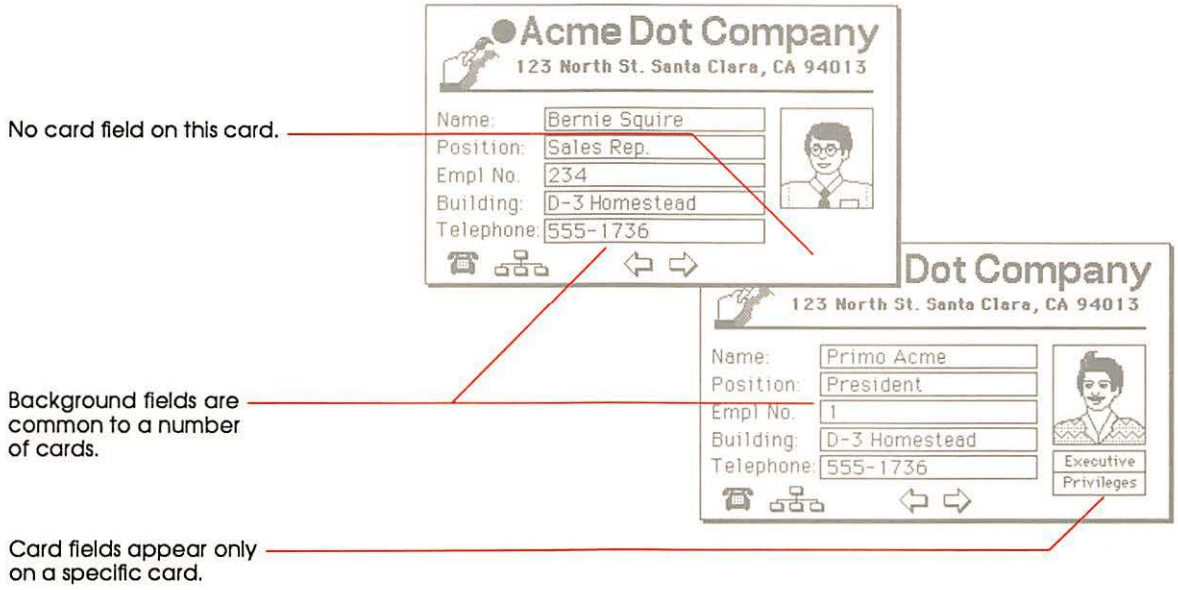


Figure 4-1
Different kinds of fields

You can have as many fields on a card or background as will fit. Fields can overlap one another to any depth.

- *Text can overlap, too:* When fields overlap, the text within the fields can also overlap if some of the fields are transparent. Although you can create some interesting special effects this way, you can also create quite an aesthetic mess. When you overlap background fields and card fields, be sure to go through each card associated with the background after you've entered text to make sure things look the way they should.

Creating fields

You create fields by using the Field tool in the Tools menu.

Figure 4-2
Field tool in Tools menu

- To create a field:

1. **Move to the card where you want the field to appear.**
2. **To create a background field, choose Background from the Edit menu.**
3. **Choose New Field from the Objects menu.**

   A new field appears in the center of the screen. Alternatively, move the pointer where you want the field to start; then press the Command key and drag. (See Figure 4-3.)
4. **Choose Field Info from the Objects menu and make selections as appropriate in the Fields dialog box.**

   The Fields dialog box is described in detail later in this chapter.
5. **Size the field appropriately.**

   See "Changing a Field's Size," later in this section. As you drag, a dotted rectangle appears showing you how wide and how long the field is; the lines in the rectangle show where the bottom of each line of text will be.

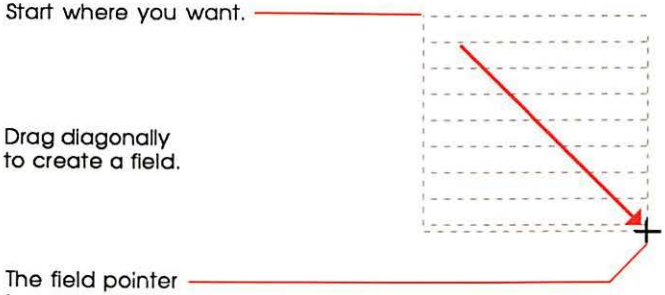


Figure 4-3
Creating a new field by dragging

The dotted lines go away when you choose another tool. The top-left and bottom-right corners define the size of the field; the lines going across show you the text lines within the field.

❖ *Changing line spacing:* You can change the amount of spacing between lines by changing the number in the Height box of the Text Style dialog box. See "Setting Text Properties," later in this chapter.

Important The most common mistake in creating a field is putting it on a card when it's supposed to be on a background. After you've created one or more fields, flip to the next card; if the fields you've just created are on that card too, you've created background fields.

Placing and moving fields

You can place a field wherever you want, including on top of another field.

■ To move a field:

1. **Select the Field tool from the Tools menu.**

   The Field tool appears highlighted in the Tools menu, showing you that it's selected.

2. **Click inside the field you want to move to select it.**

   The field becomes surrounded by dotted lines to show it's selected.

3. **Drag the field by its middle.**

When the field is where you want it, release the mouse button. When you move a field, any text you've typed moves with it. HyperCard won't let you move any part of the field off the card.

Changing a field's size

You can change a field's size whether or not it has text in it. When you change its size, any text in it wraps appropriately to conform to the new size. If you shrink the size of a non-scrolling field such that there's not enough room for all the text, text typed toward the bottom of the field becomes invisible. (It's still there, though; if you enlarge the field, the text becomes visible again.)

Figure 4-4
Changing a field's size

Changing the size or shape of a background field changes it on every associated card.

- To change a field's size:

1. **Select the Field tool.**
2. **Click inside the field to select it.**

   The selected field is surrounded by dotted lines.

3. **Drag the field from one of its corners.**

You'll probably want to look through any cards affected by the field change to see how the text looks.

Deleting a field

You can delete a field whether or not it has text in it.

■ To delete a field:

1. **Select the Field tool from the Tools menu.**
2. **Click inside the field to select it.**
3. **Choose Cut Field from the Edit menu.**

   Choose Clear Field to eliminate the field without affecting the Clipboard (or press the Backspace or Clear key).

Warning When you delete a field, you delete all its text along with it. Nothing goes onto the Clipboard; it is all simply eliminated. When you delete a background field, you irrevocably delete text associated with that field in every card on which the field appears. You cannot recover the lost text by choosing Undo from the Edit menu.

Moving between fields

Knowing the position of a field on a card can be difficult sometimes. Depending on the field style you've selected, empty fields can be invisible when any tool other than the Field tool is selected (although any text in them will still show).

■ To move from one field to another in order to type text:

1. **Select the Browse tool from the Tools menu.**
2. **Press the Tab key until you get to the field you want.**

HyperCard first tabs through the background fields and then tabs through the card fields of the current card.

When you click in a text-filled area of a field, the insertion point appears wherever you click. When you click in an empty area of a field, the insertion point appears at the start of that empty line.

Tab order and layers

Pressing the Tab key moves the insertion point to the field with the next higher field number.

Initially, field numbers are in creation order. The first field created gets the number 1, the second field gets the number 2, and so on. (A pasted field is treated as a newly created field, no matter what its number on the card or background from which it was copied or cut.) If the insertion point is in field number 3 and you press Tab, the insertion point moves to field number 4; if there are only three fields, the insertion point moves from field 3 to field 1.

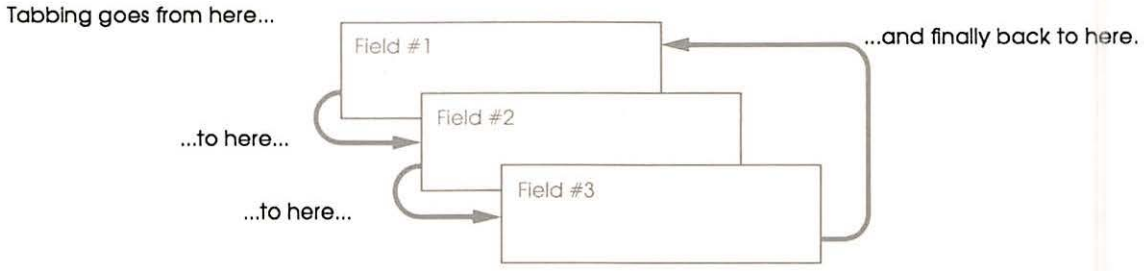


Figure 4-5
Tab order

The **layer** is the order of the field relative to other fields on the same card and background. When the visible card and background have multiple fields, fields can lay over each other; the field created most recently is ordinarily the topmost field, said to be on the front layer. In Figure 4-5, field 1 is on the layer farthest away (or, if you prefer, in the back), field 2 is closer, and the highest numbered field, field 3, is on the frontmost layer. The lowest numbered field is always farthest away; the highest numbered field is always on the frontmost layer (or in front). In fact, you can think of the field number as being the field's layer number.

- To see a field's number:

1. **Select the Field tool from the Tools menu.**
2. **Click inside the field whose number you want to see.**
3. **Choose Field Info in the Object menu.**

   Alternatively, just double-click in the field.

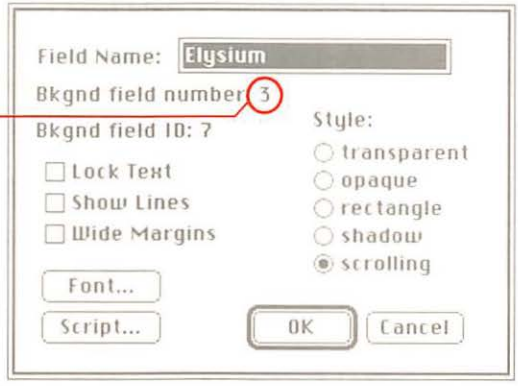


Figure 4-6
Field number, initially determined by creation order

Changing field tab order

You can change the tab order among background or card fields by changing the field's layer. (Figure 4-5 in the preceding section illustrates layers.)

- To change a field's layer:

1. **Select the Field tool from the Tools menu.**
2. **Click inside the field whose layer you want to change.**
3. **Choose Bring Closer or Send Farther from the Objects menu.**

Each time you choose Bring Closer, the field gets closer to being the frontmost layer (with a correspondingly higher field number); each time you choose Send Farther, the field moves to a farther layer (with a correspondingly lower number). And as the layer order changes, so does the tab order.

Duplicating a field

Duplicating a field makes an exact copy of the field (but it doesn't copy the text in the field).

- To duplicate a field:

1. **Select the Field tool from the Tools menu.**
2. **Select a field by clicking inside it.**

   A dotted line surrounds the field, showing that it's selected.
3. **Choose Copy Field from the Edit menu.**

4. **Choose Paste Field from the Edit menu.**

   A copy of the selected field is created, laying on top of the original. You need to drag the new field to where you want it.

5. **Drag from within the new field.**

❖ *Duplicating a field doesn't copy text:* When you duplicate a field, you don't duplicate the field's text with it. To copy both a field and the field's text: First copy the field; then copy the text and paste it to the new field.

Field names

Each field can have a name associated with it. You use field names mostly for advanced HyperCard features such as constructing scripts.

A field name can have any number of characters in it. You can use any character in a field's name.

■ To name a field:

1. **Select the Field tool from the Tools menu.**
2. **Select the field you want to work with by clicking inside it.**
3. **Choose Field Info from the Objects menu (or just double-click the field).**

   The dialog box in Figure 4-7 appears.

4. **Type or change the field's name; then press OK.**

Type the name you want for this field. (You can change it any time you want.)

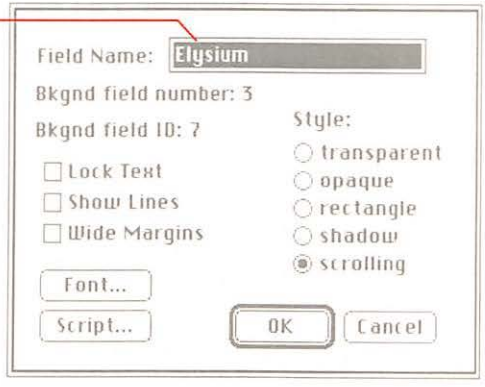


Figure 4-7
Naming a field

❖ *Script writers take note:* If you change the name of a field, be sure also to change its name everywhere else you refer to it. For example, if you rename a field "Wrigley" and you use the old name "Chester" in a script, the script won't work properly—it won't be able to find the field it needs.

Field styles

Fields can have five styles: transparent, opaque, rectangle, shadow, or scrolling. You choose the style of a field by choosing an option in the Field Info dialog box. (See Figure 4-8.)

❖ *About scrolling:* Scrolling adds a vertical scroll bar to the selected field. You view text in a field with a scroll bar as you do text in any scrollable Macintosh window. See the guide that came with your computer for details.

Choose one of these styles for your field.

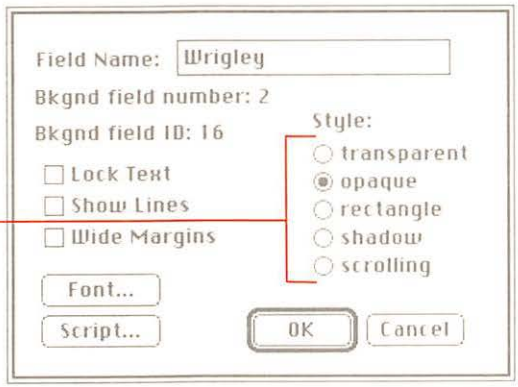


Figure 4-8
Choosing a field style

You can change a field's style even after you've typed text into the field. Just repeat the steps you used to choose the original style. Figure 4-9 shows examples of field styles.

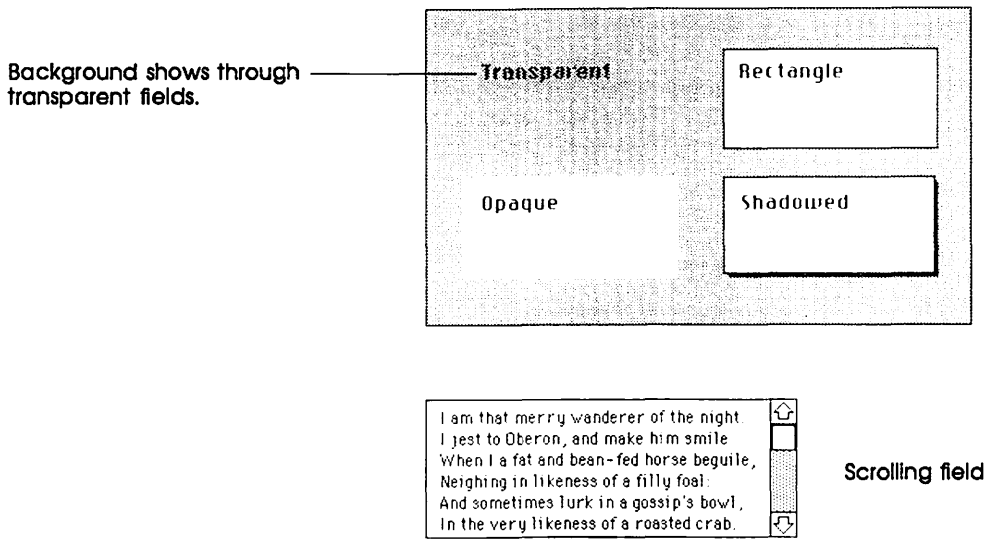


Figure 4-9
Field styles

If you don't choose a style, HyperCard uses Transparent.

Lock Text

Lock Text protects the text in a field from being changed. When you check this option on the Field Info dialog box for a selected field, text within the field cannot be altered in any way. (The pointer doesn't change to an I-beam when it passes over a locked field.)

To unlock a field (and to allow its text to be altered), uncheck Lock Text.

Wide Margins and Show Lines

Wide Margins and Show Lines are options you can check in the Field Info dialog box for a selected field. These options give you more control over the look of your text fields. Wide Margins, which works best when the field has a rectangle or shadow style, leaves more space in the right and left margins. (As a result, text takes up more space.)

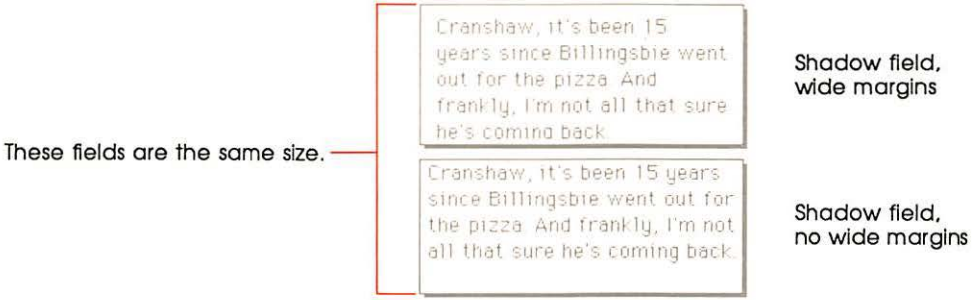


Figure 4-10
Wide Margins

Show Lines lets you see where lines are as you type in text. Later, you can click Show Lines again to hide the lines.

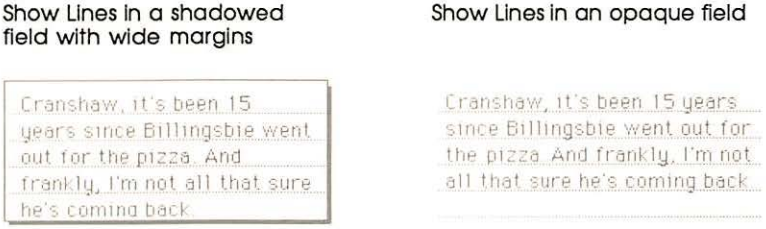


Figure 4-11
Show Lines

Creating regular text

Regular text goes inside fields that you've created. To create text, first you use the Browse tool to set the insertion point inside the field you want; and then you type.

Select the Browse tool to start typing text.

Figure 4-12
Selecting the Browse tool

Important Use the Browse tool, not the Paint Text tool, for entering text in fields. Regular text is always editable in an unlocked field; Paint text, however, is not editable once you have typed it and clicked the mouse button.

Entering text

You use the keyboard to enter text in HyperCard. You must create a field before you can type text. (See "Creating a Field," earlier in this chapter.)

Browse tool

■ To enter text in a field:

1. **Select the Browse tool from the Tools menu.**
2. **Click in the field where you want to type.**

   (The insertion point appears at the left edge of the line you clicked on.)
3. **Click where you want the new text to start.**

   Or select the text you want to replace.
4. **Start typing.**

   Your new text is inserted at the insertion point, or replaces the selected text.

Warning When you tab to a field that already contains text, all the text is selected. Typing at this point will wipe out all the old text in the field, and replace it with what you type. To preserve the old text, move the pointer where you want to begin typing, and click.

Fields without text in them are sometimes invisible; unless you tab to a field, or you want to type in a field that already has some text in it, you'll have to estimate the field's position (or choose the Field tool to see where all the fields are).

If you type more text than will fit in a non-scrolling field, the remaining text goes off the bottom of the field. But this invisible text isn't lost, it's just hidden. To see the hidden text, make the field bigger.

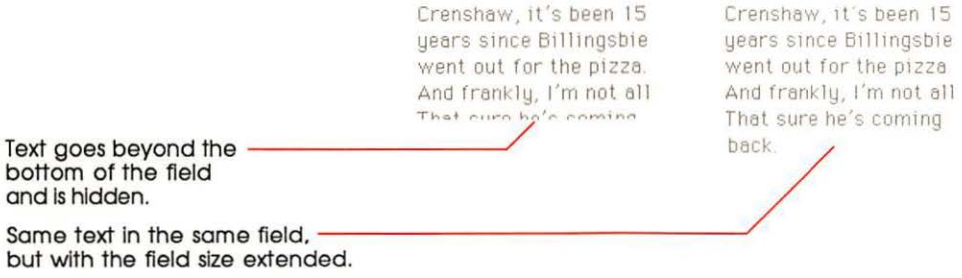


Figure 4-13
Revealing hidden text

Moving and copying text

You can move and copy text from one part of a field to another, or from one field to any other field anywhere in HyperCard.

You use the same cut-and-paste techniques for moving and copying text in HyperCard as you use in all Macintosh applications. See your owner's guide for details.

- *Uneditable text:* If you can't edit text, check the Field Info dialog box for that field to see if Lock Text is checked. If the field is unlocked, or if the text exists outside of a field, you're dealing with Paint text. To change Paint text, you must erase the old text and create new text.

Setting text properties

You can determine how the text in each field looks by using the Text Style dialog box.

■ To set text properties:

1. **Select the field you want to work with by clicking inside it.**

   Either the Browse tool or the Field tool must be active.

2. **Choose Text Style from the Edit menu.**

   The dialog box in Figure 4-14 appears.

3. **Set the properties as you prefer.**

   You can set font, size, style, alignment, and line spacing (line height).

4. **Click OK.**

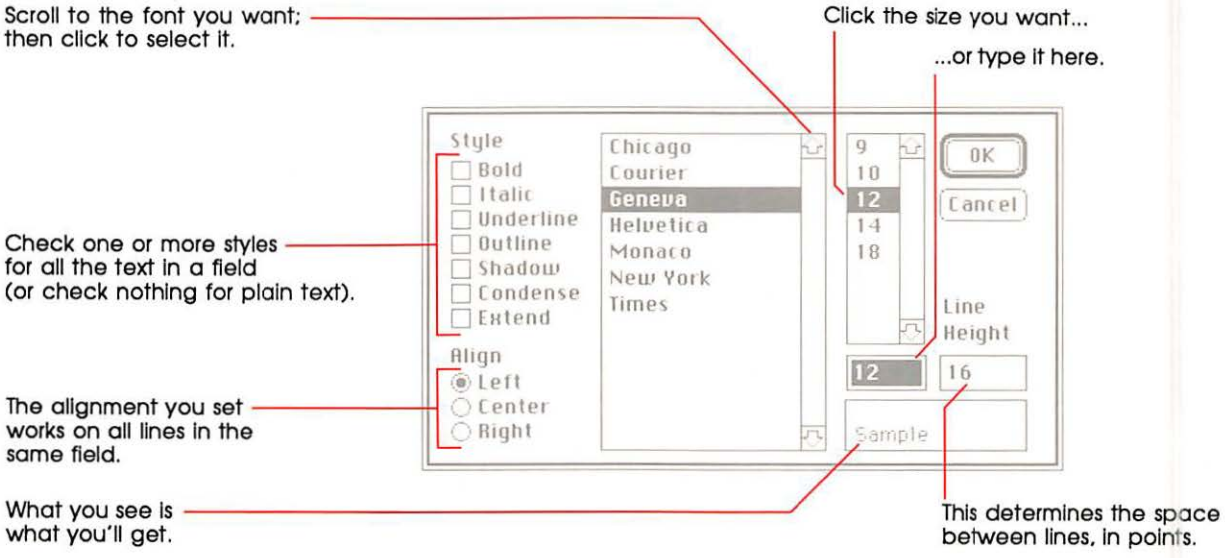


Figure 4-14
Text Style dialog box

Important The properties you set affect all the text within a field. You cannot, for example, make a single word bold unless it's the only word in the field.

Font

You can use any font that's on your startup disk. You can see all the available fonts by scrolling through the list at the bottom of the Text Style dialog box. The font of the text you've selected is highlighted.

- **To change the font, just click the one you want.**

  A sample of what your text will look like appears in a box at the lower right. When you've finished with the Text Properties dialog box and click OK, the selected text appears in the new font.

- **To return to your work quickly, double-click the font you want.**

  The dialog box closes immediately, and the selected text appears with all the properties you've set.

Style

Text can appear in bold, italic, underline, outline, shadow, or a combination of any or all of these. If the field you've selected has text in any style besides plain, the appropriate boxes are checked.

- **To choose a style, click the appropriate check box or boxes in the Text Style dialog box.**

  An X appears in each box you've clicked.

- **To cancel a style choice, click in the check box again.**

  The X goes away.

A sample of what your text will look like appears in a box at the lower right. When you've finished with the Text Styles dialog box, click OK; the text appears in the new style.

All text in a given field has the same style or styles.

Align

You can set the text in a field to align to the left side of the field, to the right, or to be centered within the field. The same alignment setting works for all lines within a field; you can't set each line separately.

■ **To change the alignment, click the appropriate button.**

A black dot shows in the button you've clicked.

When you click the OK box and go back to your work, the text will be aligned properly.

Size

Point is a printer's term; one point is equal to about 1/72 of an inch.

The box marked Size shows the size of the text in the field you've selected. The number you see is the text's size in **points.** Each point is a single dot on the Macintosh screen.

❖ *Preset size and style:* When you start HyperCard, the preset size and style is 12 point plain Geneva. The changes you make to size and/or style remain in effect for all fields you create until you change them or until you leave HyperCard. When you enter a field you've already created, any new text takes on the size and style of the rest of that field.

When you click a font name in the Text Style dialog box, all the sizes that you have in the System file for that font come up in the scrollable window to the right of the font list; the closest one to the actual size of the text in the active field is highlighted. (If you haven't clicked on a font, the size you see is the size of the text in the active field.) The highlighted size also appears in the Size box.

■ **To use a size other than the one highlighted, scroll to the size you want and click it.**

■ **To use a size not listed, replace the number in the Size box with the size you want.**

First select the old size by dragging across it in the size box; then type the new one.

The highlighted size is the one that's closest to the actual size of the text in the active field.

Height

Height is the space allowed for each line in a field, expressed in points. The number you see in the Height box of the Text Style dialog box includes space for the height of the characters and the space between lines, plus a couple of points for slack. HyperCard sets this number automatically when the font size changes; but you can set it by typing whatever number you want.

■ **To change Height, replace the number in the Height box with a new number.**

First select the old number by dragging across it; then type the new one. The new number replaces the old one.

■ **To make lines touch or overlap, set the Height size lower than the Font size.**

The exact number varies from font to font; experiment until you get the effect you want.

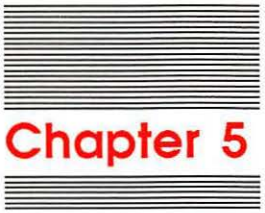
❖ *Top line can get chopped:* You might lose some of the top line if you set the Height size below the Font size.

Summary

In this chapter you learned about fields and text in HyperCard. You saw (among other things) that

- □ all regular text appears in fields
- □ you create fields using the Field tool
- □ you can create fields both on a background and on a card
- □ fields can be enlarged or made smaller, moved, copied, cut, deleted, and pasted
- □ you enter text into fields using the Browse tool
- □ you can move, copy, cut, delete, and paste text
- □ all text within a field shares the same properties—font, size, style, alignment, and line spacing

Chapter 6 has more details about text and fields. See especially "Print Report" for information on printing text in fields, and "Field Info" to read about protecting a field's text from being changed.



Chapter 5

Graphics in HyperCard

This chapter presents an overview of HyperCard's graphic elements and shows how the different elements can work together. (Chapter 6 tells you what tools and commands you have at your disposal for creating pictures.)

- "Menu Commands You Use With Graphics" provides a brief frame of reference for using the Paint commands in different menus to produce a finished picture.
- "Power Keys" gives details on special states and commands you execute from the keyboard.
- "Double-Clicking Paint Tools" summarizes what happens when you double-click on certain tools.
- "Dragging With Modifier Keys" lists the effects of pressing Command, Option, or Shift while you drag with different Paint tools selected.
- "Special Effects" shows what happens when you combine several features.
- "Importing Pictures" suggests ways to bring pictures into HyperCard from outside sources.

Menu commands you use with graphics

To make finished pictures in HyperCard, you use commands from several menus.

- To create the basic picture elements—shapes, patterns, contours—use the tools on the Tools menu and the patterns on the Pattern menu.
- To borrow pictures from cards that already exist in the current or other stacks, use the Copy and Paste commands from the Edit menu.
- To bring in a picture you created someplace else using MacPaint® or a MacPaint-compatible application, or that you brought into the computer using a digitizing camera, scanner, or some other peripheral device, use the Import command from the File menu. (You can also bring in pictures through the Clipboard and the Scrapbook.)
- To create a picture common to several cards, use the Background command.
- To manipulate the picture and to do finish work—rotate parts of it, bring up FatBits, and so on—use the commands in the Paint menu.

Power keys

When you choose Power Keys from the Options menu, striking a single key does the work of selecting a specific menu command.

The Options menu is visible only when you've selected a Paint tool.

Table 5-1 shows a list of menu commands and their power-key equivalents. (Each of these commands is described in detail in Chapter 6.)

Table 5-1
Power keys

Command	Key	Menu
Darken	D	Paint
Draw Centered (on/off)	C	Options
Draw Multiple (on/off)	M	Options
Fill	F	Paint
Flip Horizontal	H	Paint
Flip Vertical	V	Paint
Grid (on/off)	G	Options
Invert	I	Paint
Lighten	L	Paint
Line size	1–4, 6, 8	Options
Opaque	O	Paint
Pickup	P	Paint
Revert	R	Paint
Rotate Left	[	Paint
Rotate Right	]	Paint
Select	S	Paint
Select All	A	Paint
Select black pattern	B	Patterns
Select white pattern	W	Patterns
Trace Edges	E	Paint
Transparent	T	Paint

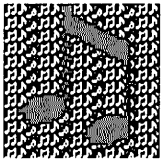
Listed next are descriptions of a few power keys that need special mention.

Power key P: Making a graphic cookie cutter

Power key P chooses the Pickup command in the Paint menu. It works like a cookie cutter. You drag a source image (the cookie cutter) over the image whose pattern you want to pick up (the cookie dough). HyperCard uses the outline of the source image as the cookie cutter. Pressing power key P is like pushing the cutter into the dough—when you drag the cutter away again, it's converted to the pattern you moved it over.

1. This is the shape with the pattern you want to change.

2. This is the pattern you want to use.



3. Select the shape and move it over the pattern.

4. Choose Pickup (or just press P if power keys are active).

5. Drag the shape away.

Figure 5-1
Source image picks up pattern of overlaid image

Power key S: Tightening the selection

Power key S lets you lasso a picture that you've already selected with the Selection tool. You can also press S to select an area you've just drawn (or even erased) with another tool; once selected, you can move it or fill it, or do whatever else you want with it.

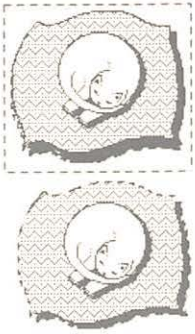


Figure 5-2
Refining a selection

Power key S is especially useful when you want to select a specific area quickly with no white space, or if your hand isn't steady enough to use the Lasso tool with precision.

Power key T: Turning a graphic transparent

Ordinarily when you draw or paste a graphic onto a card, the graphic is opaque—that is, it totally covers what it's drawn or pasted over. Pressing power key T makes the graphic transparent so that what it covers shows through.

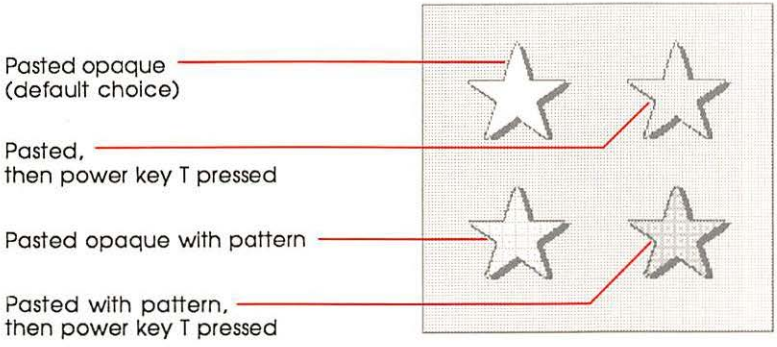


Figure 5-3
Opaque and transparent images

Double-clicking Paint tools

Double-clicking on certain Paint tools enhances using those tools. Here's a list of the tools and what double-clicking does. (Chapter 6 tells you what each tool is for, and how to use it.)

Table 5-2
Effects of double-clicking Paint tools

Double-click ...	Effect
Any pattern	Bring up pattern editing dialog box
Brush	Bring up Brush Shapes dialog box
Bucket	Hide/show pattern menu
Curve	Toggle Draw Filled command
Eraser	Erase whole picture
Lasso	Lasso every element in a picture
Lines	Bring up line/border thickness dialog box
Oval	Toggle Draw Filled command
Paint text	Bring up Text Style dialog box
Pencil	Set/cancel FatBits
Polygon	Toggle Draw Filled command
Regular Polygon	Bring up shape selection dialog box
Rectangle	Toggle Draw Filled command
Rounded Rectangle	Toggle Draw Filled command
Selection	Select whole picture

Dragging with modifier keys

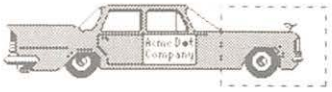
Dragging with different tools selected has different effects, especially if you're pressing Command, Shift, or Option at the same time. Table 5-3 shows you what happens. Tools that aren't listed aren't affected by modifiers at all.

Table 5-3
Effects of modified dragging

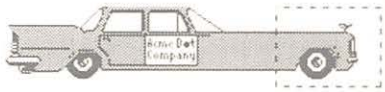
Tool	Command	Shift	Option
Selection	Select tightly	Move selection horizontal or vertical	Copy selection
Lasso	Lasso everything	Move selection horizontal or vertical	Copy selection
Line	No effect	Draw at multiples of 15° angles	Draw with pattern
Eraser	Erase in white	Erase straight horizontal or vertical	No effect
Pencil	Get/leave FatBits	Draw straight horizontal or vertical	No effect
Rectangle	No effect	Draw square	Patterned border
Curve	No effect	No effect	Patterned border
Brush	Erase what you paint over	Paint straight horizontal or vertical	No effect
Spray	Erase what you spray over	Spray straight horizontal or vertical	No effect
Rounded Rectangle	No effect	Draw square with round corners	Patterned border
Polygon	No effect	Draw at multiples of 15° angles	Draw with pattern
Oval	No effect	Draw circle	Patterned border
Regular Polygon	No effect	Rotate in 15° increments	Patterned border

Special effects

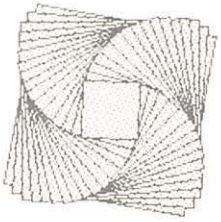
In many cases, holding modifier keys down in combination with choices from the Options menu makes combinations of effects. Experiment with different combinations to see what happens. (Figure 5–4 shows some examples.)



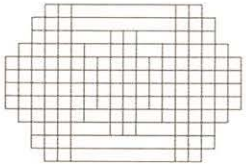
Select a part of a picture.



Use Command-Shift-Option-Drag with Grid checked in the Options menu to enlarge or shrink the selection keeping the pattern consistent.



Draw Multiple and Draw Filled



Draw Multiple, with Rectangle, Grid on

Draw Multiple with Circle tool, Grid and Draw Center on, Shift key held down

Draw Multiple, Grid on

Draw Multiple with Line tool, Shift key held down

Draw Multiple with Line tool, Grid on

Figure 5-4
Special effects

Importing pictures

There are many products that create pictures compatible with MacPaint. Some products let you create MacPaint pictures from scratch, others let you digitize images using a video camera attached directly to the Macintosh, and still others connect to the Macintosh through an ImageWriter® printer. However you create it, you can bring any MacPaint picture into HyperCard using the Import Paint command on the File menu. Once you've imported a picture, you can treat it as if you had created the imported image in HyperCard.

- *Try the Clipboard:* Sometimes you might want to bring a non-MacPaint picture into HyperCard—for example, something you create using MacDraw or a similar application. Try copying the picture to the Clipboard or to the Scrapbook first; then paste into a HyperCard card.

Figure 5-5
Imported digitized image

- *Built-in screen shooter:* To take a quick snapshot of the screen in nearly any Macintosh application, press Command-Shift-3. This keyboard command, built into your Macintosh's System file, stores a picture of the screen on disk under the name SCREEN *n*, where *n* is a digit from 0 through 9. (When you already have all 10 digits used, your Macintosh beeps and you can't save more pictures until you rename or erase some.)

Summary

In this chapter you saw how HyperCard's graphic elements work together. You learned

- which menu commands to use to perform specific tasks
- how to use power keys instead of menu commands to perform certain functions, and about the unique effects of certain power keys
- the effects of double-clicking Paint tools
- the effects of dragging with different Paint tools selected
- the special effects that happen when you combine different elements

Chapter 6 gives details for using all the Paint tools in the sections called "Tools," "Paint," and "Options."

Chapter 6

Menu Commands

This chapter gives detailed descriptions of each command on all the HyperCard menus. You can also find information on commands in the Menus section of the on-line Help system.

- *General versus Paint tools:* Throughout this chapter you'll see references to General tools and Paint tools. General tools are those tools that appear on the first row of the Tools menu; use them for general HyperCard tasks (browsing, creating buttons and fields, entering text). Paint tools are all the other tools on the menu; use them to create and edit pictures. For details, see "Tools menu" later in this chapter.

Figure 6-1
General and Paint tools

Menu items are described in the order that they would appear if Scripting was checked in the User Preferences card of the Home stack. (See "User Preferences" in Chapter 3.)

File menu

The File menu holds commands that save information to, or retrieve information from, a disk. You can choose any command on the file menu while you're using a General tool (that is, any of the tools on the top row of the Tools menu); while you're using a Paint tool, you can choose *only* Import Paint, Export Paint, or Quit HyperCard.

The different File menus

The level set on the User Preferences card of the Home stack, in conjunction with the protection level set for a particular stack, determines which menu appears when you press File. If either level is set to Browsing or Typing, you choose a command from the short menu (far left in Figure 6-2). Otherwise you choose from the full menu (middle in Figure 6-2). While you're using a Paint tool, you can choose *only* Import Paint, Export Paint, or Quit HyperCard (far right in Figure 6-2) no matter how high your level is.

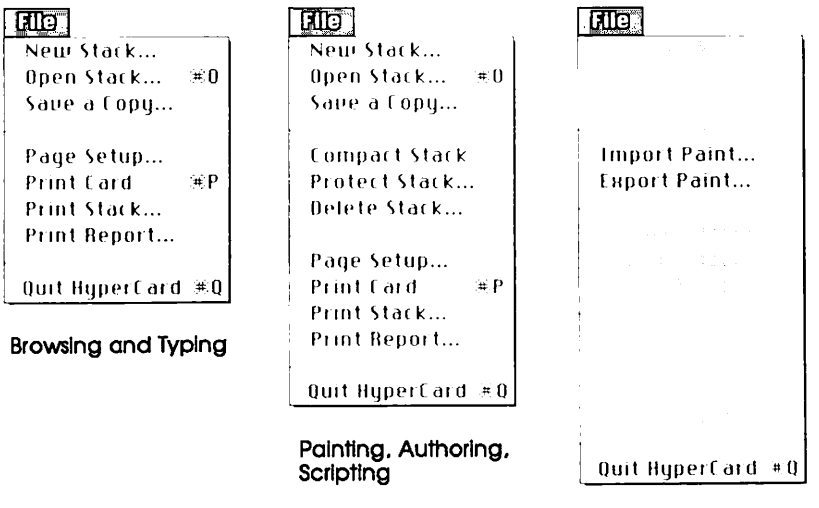


Figure 6-2
File menus

For information on user levels, see "User Preferences" in Chapter 3. For information on individual stack protection, see "Protect Stack" elsewhere in this chapter.

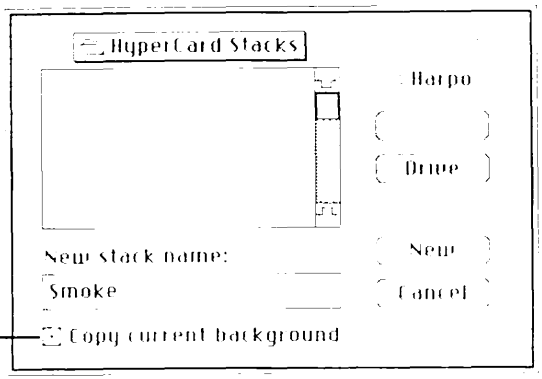
See "Tools Menu" later in this chapter for a description of the tools.

Important HyperCard has no Save command. HyperCard automatically saves what you create whenever you switch from one card to another. To save your stack under a different name, use the Save A Copy command.

New Stack...

New Stack puts away the current stack (making sure that all the work you've done is saved) and creates a new one.

When you choose this command, HyperCard puts up a Directory dialog box and asks you to name the new stack:



You use the old stack's design for the new stack if this box is checked.

Figure 6-3
Naming a stack

If you click New with the box next to "Copy current background" checked, HyperCard creates a new stack with the background fields, background picture, and background buttons (including all actions) of the last viewed card in the previous stack. If "Copy current background" is unchecked, the new stack is blank.

To choose this command you must be using a General tool.

Open Stack...

Open Stack (or Command-O) opens an existing stack for your use. This command brings up the Directory dialog box and waits for you to select a stack. When you've made your selection, HyperCard closes the stack you were working with and saves any changes you made; then it gets the stack you asked for. The first card in the summoned stack appears on the screen.

❖ *An Open Stack alternative:* You can also open a stack by typing Go *stack name* into the Message box and pressing either Return or Enter. (You get the Message box by choosing Message from the Go menu.) For example, to get to the Art Ideas stack, type `Go Art Ideas` and press Return.

To choose this command you must be using a General tool.

❖ *Where the stacks are:* If HyperCard can't find a stack, it will ask you to tell it where it is. If the stack is on a 3.5-inch disk, you'll need to insert the disk into one of your drives. Stacks that come with HyperCard are scattered among the HyperCard disks. See Appendix B for a listing.

Save a Copy...

Save a Copy saves a copy of the stack you're working on under a new name. (You continue to work on the original stack.) Use it to preserve a stack in its unchanged condition while you experiment with new variations.

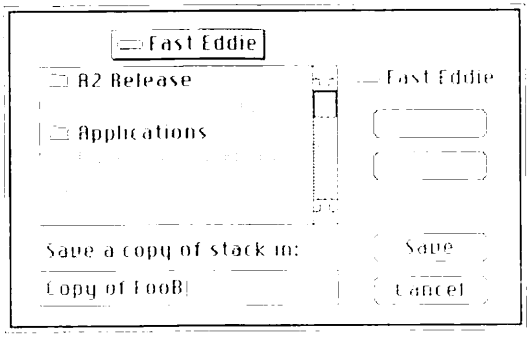


Figure 6-4
Saving a stack under a different name

HyperCard presets the name of the copy to "Copy of (*original stack name*)." (The name is automatically selected; to change it, just type the new name.)

To choose this command you must be using a General tool.

Import Paint

Import Paint (available only when a Paint tool is selected) gets a copy of a MacPaint-compatible document from the disk and pastes it onto the current card.

When you choose Import Paint, the directory dialog box appears so you can select a document using the hierarchical file system. HyperCard pastes the imported document, starting at the imported document's upper-left corner, onto the card.

- *Some picture prepping:* You might want to do some preparation work on a document before you import it. Make sure the part of the document you want to paste is in the document's upper-left corner before you bring it into HyperCard. (You can't scroll documents in HyperCard).

For complete information on graphics in HyperCard, see "Paint Menu," "Tools Menu" and "Pattern Menu" later in this chapter, and Chapter 5, "Graphics in HyperCard."

Export Paint

The Export Paint command (available only when a Paint tool is selected) takes a snapshot of the current card and saves the snapshot as a MacPaint document.

Export Paint creates a MacPaint document from the card on the screen and saves it to disk under the name you give it. The image of the full-sized card gets saved, even if you're using FatBits. If Background is checked in the Edit menu, just the background picture is saved.

HyperCard exports only card and background information. If you have a tear-off menu on the screen, its image isn't included with the exported picture.

You can't save buttons and actions using Export—you only save an image of what's on the screen (including images of buttons and text).

For complete information on graphics in HyperCard, see "Paint Menu," "Tool Menu" and "Pattern Menu" later in this chapter, and Chapter 5, "Graphics in HyperCard."

⌘ - Shift - 3

❖ *Quick exporting:* To take a quick snapshot of everything on the screen (including the menu bar and any torn off menus), press Command-Shift-3. This keyboard command, built into your Macintosh's System file and available any time, saves a picture of the screen under the name SCREEN *n*, where *n* is a digit from 0 through 9. (When you already have all 10 digits used, your Macintosh beeps; to make room for more, go to the Finder and rename or delete some of the snapshots.) You can use this shortcut in almost any Macintosh application, and later import the picture into HyperCard using the Import Paint command.

Compact Stack

This command (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) gets rid of free space in a stack. Free space gets introduced into a stack each time you delete a card, background, field, or button; the more free space in a stack, the slower and larger the stacks.

To see the amount of free space in a stack, look at the number following the words "Free in Stack" in the Stack Info dialog box. (Stack Info is an item in the Objects menu, available when Authoring or Scripting is checked on the User Preferences card.)

To use this command, you must have a General tool selected.

Protect Stack

Protect Stack sets levels of protection for the information in, and design of, the current stack. Use it to keep your personal stacks private, or to limit the way people can use or change your stacks. Choosing this command brings up the dialog box in Figure 6-5.

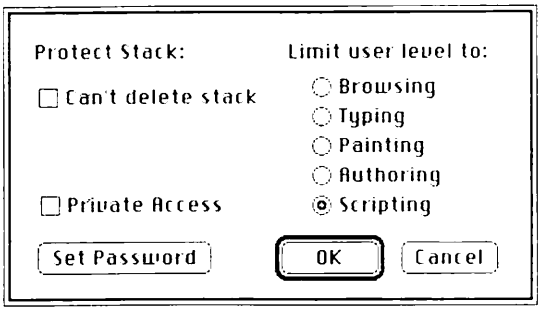


Figure 6-5
Protect Stack dialog box

Can't delete stack

When this box is checked, you can't delete the stack.

Private Access

When this box is checked, you must type the proper password (as determined by Set Password, below) before HyperCard lets you use the stack at all.

Set Password

Click this button to set or change a password. You set a password to restrict access to the Protect Stack dialog box (thus preventing unauthorized changes) or to restrict access to the stack. The dialog box in Figure 6-6 appears.

Figure 6-6
Password dialog box

Type the password you want to use into the "new password" text box; then press Tab to move the insertion point to the "verify password" text box, and type the password again to verify it.

Click None to cancel the password and to put the dialog box away.

When you use the password later, it must match character-for-character the one you set. (Uppercase and lowercase letters don't have to match.)

Figure 6-7
Matching and nonmatching characters

When a password is set, you can't get to the Protect Stack dialog box without knowing the password. When Private Access is checked, you must know the password to use the stack at all.

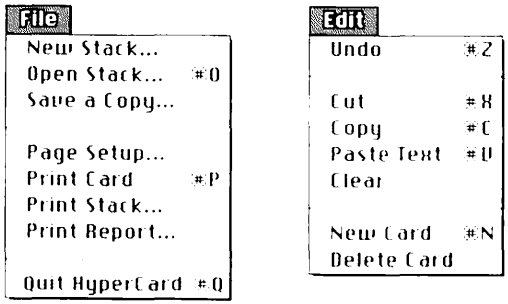
Warning There's no way to find out a password once it's been set. If you forget the password, you cannot get to the Protect Stack dialog box again. If you've checked Private Access and you forget your password, you won't be able to use the stack again once you leave it.

Limit user level

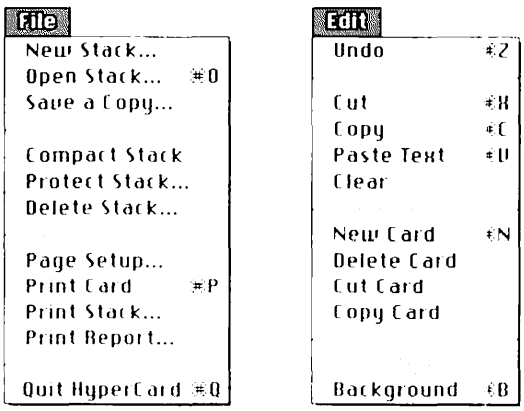
The box you check here limits the commands and tools a user can employ within the current stack. When a limit you set here conflicts with a limit set on the User Preferences card of the Home stack, the lower of the two levels takes precedence. (Browsing is the lowest level.) Table 6-1 shows the powers inherent in each level.

Table 6-1
Powers associated with each user level

Browsing	Short File and Edit menus (Figure 6-8), plus the Go menu. Use of the Browse tool.
Typing	Same as Browsing, plus ability to edit text in existing fields.
Painting	Same as Typing, plus full File and Edit menus (Figure 6-8), Tools menu (plus Paint, Options, and Pattern menus when a Paint tool is selected), use of all Paint tools (but not Button and Field tools), Power Keys option.
Authoring	Same as Painting, plus Objects menu, use of Button and Field tools.
Scripting	Same as Authoring, plus ability to write and edit scripts.



Browsing and Typing get short menus.



Painting, Authoring, and Scripting get full menus.

Figure 6-8
Short and full File and Edit menus

⌘ - File menu

Important When you restrict a user's level to Browsing or Typing, Protect Stack doesn't appear on the File menu. (See far left, Figure 6-8.) To get a full File menu no matter what the user level is set to (either in Protect Stack or on the User Preference card), hold down the Command key before you drag through the File menu.

❖ *Card and background protection:* You can also protect each card or background individually by checking the proper box in the Card Info or Background Info dialog boxes. See "Card Info" and "Bkgnd Info" elsewhere in this chapter, for the details.

Delete Stack

Delete Stack (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) removes all the cards, background pictures, background buttons, actions, and fields of the current stack. It's as though you had dragged the stack to the Trash in the Finder. Use it when you have no further use for a stack.

HyperCard first asks you to confirm the deletion. After the stack is deleted, you end up at the Home card. (See "Home" in Chapter 3.)

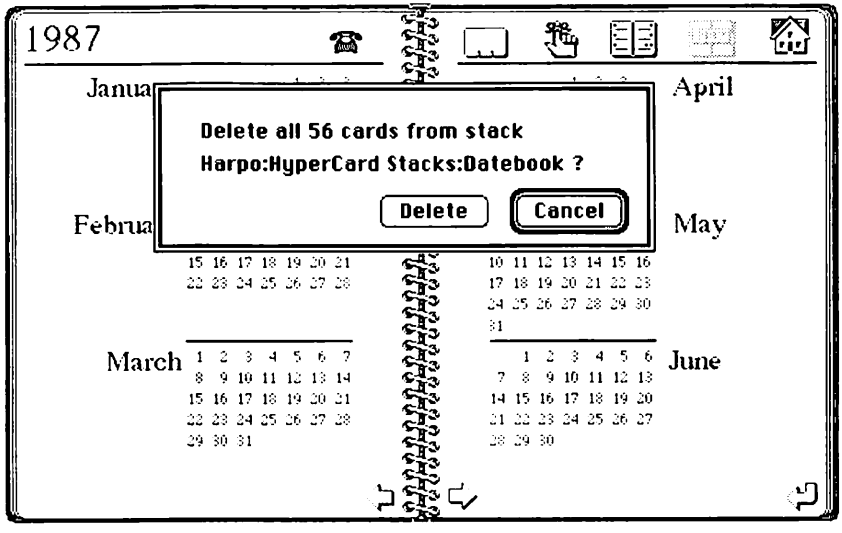


Figure 6-9
Dialog box for deleting a stack

To choose this command you must be using a General tool.

Page Setup

Page Setup lets you set paper size, orientation, and certain effects for printing. You see this dialog box:

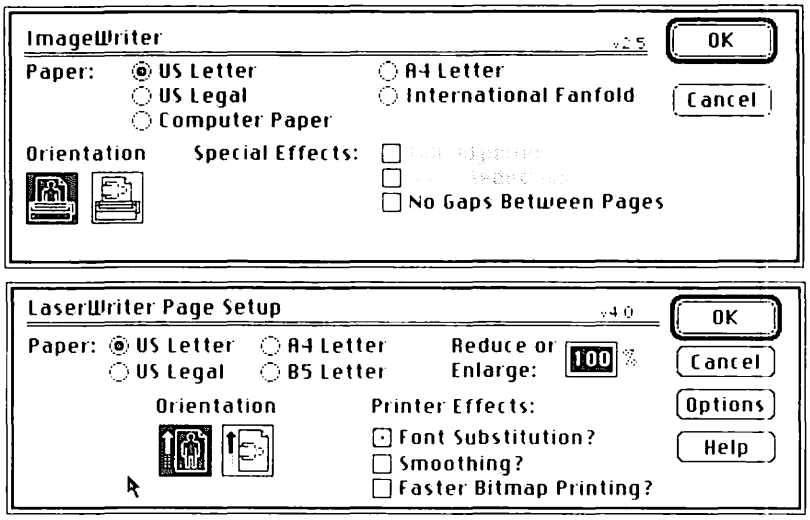


Figure 6-10
Page Setup dialog box

Landscape printing icon

❖ *LaserWriter smoothing or flipping slows printing:* If you're using an Apple LaserWriter® with Smoothing checked in the LaserWriter Page Setup dialog box, or with any of the flipping options checked, printing is slowed down considerably. Print a sample with Smoothing unchecked first to see if the results are acceptable.

Important If you select the landscape printing icon for horizontal printing on your LaserWriter, be sure to choose Faster Laser Printing. If you don't, printing a stack will be extremely slow.

❖ *Some LaserWriter printing features don't work:* The Reduce or Enlarge feature doesn't work for any printing in HyperCard. The Invert option works correctly only when Fast Laser Printing is turned off, but it takes an extremely long time to print.

To choose this command you must be using a General tool.

Print Card

⌘ - P

Print Card (or Command-P) prints the current card using the specifications you gave in Page Setup (except that cards are printed full size, no matter what reduction or enlargement you specify). Use it when you need a hard-copy version of any single card in any HyperCard stack. To print all the cards in a stack, use Print Stack (described immediately below).

To choose this command you must be using a General tool.

Print Stack...

Print Stack prints all the cards in the current stack in linear order. (With a LaserWriter, Print Stack prints the cards in reverse order so that the first card is on top of the pile in the output tray.)

To choose this command you must be using a General tool.

Print Stack brings up a dialog box. (See Figure 6-11.)

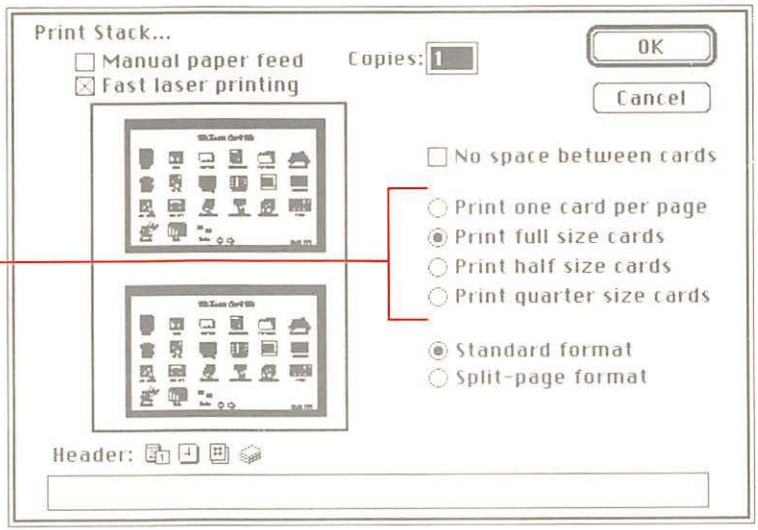


Figure 6-11
Print Stack dialog box

Manual paper feed

Check the box labeled "Manual paper feed" if you're feeding the paper by hand; HyperCard will stop the printer after each sheet and wait for you to add more paper.

Fast laser printing/Darker printing

Check "Fast laser printing" on a LaserWriter printer to speed up hard-copy production. It's recommended for most printing jobs.

Important If you select the landscape printing icon in the Page Setup dialog box for horizontal printing on your Laserwriter, be sure to check "Fast laser printing." If you don't, printing a stack will be extremely slow.

Check "Darker printing" on an Apple ImageWriter printer to print darker (useful if your ribbon is old).

Click "No space between cards" to print cards close together (for printing two cards or more per page).

Cards printed per page

Click one of the four choices to determine how many cards are printed per page. Look in the minipage window to see how many cards fit on a page. (The number varies with the options you've chosen.)

Page formats

"Standard format" and "Split-page format" determine how cards are spaced on a page when you print a stack.

"Standard format" prints cards evenly spaced on the entire page. This choice leaves enough room on the left edge to put binder holes in the printout.

"Split-page format" is for sheets that will be kept in a minibinder; it spaces cards so that the printed sheet can be folded down the middle without creasing any card's image.

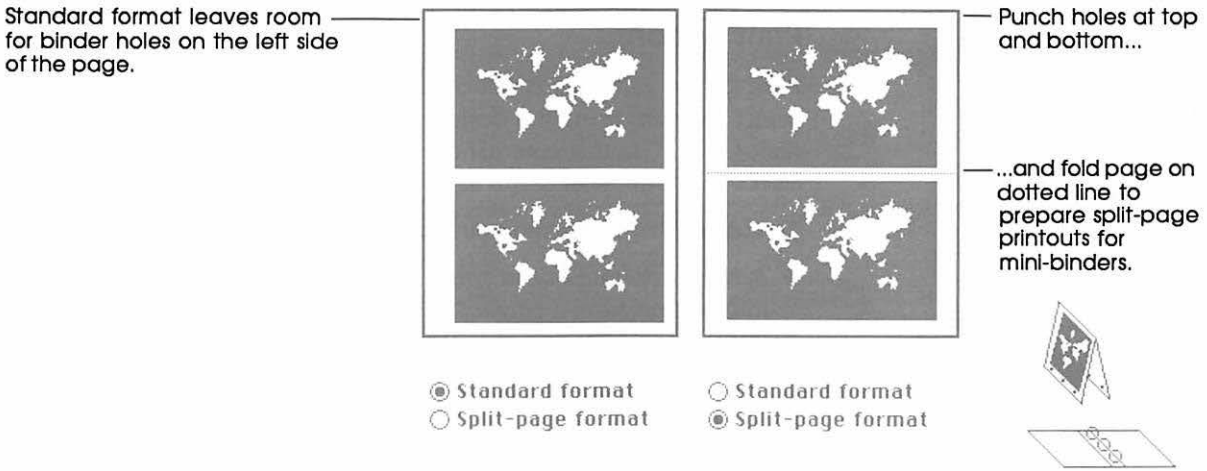


Figure 6-12
Standard format and Split-page format

Header

Tab to the Header box and type what you want to appear as a heading at the top of each sheet. Click the proper icon(s) after you tab to add page numbers, the date, the current time, and/or the stack name to the header. Click icons in the order you want them to appear in the heading. (Use the space bar to separate them.) You can preview what the header will produce by looking in the minipage window.

Format remembered

Once you print a stack, HyperCard remembers the format and header you used for that stack so you can use the same setup next time you print.

Print Report

Print Report gathers text out of fields from the cards in a stack and prints a report, using the design you specify in the Print Report dialog box. Use this command to get printed summaries of your stacks in a form most useful to you.

To choose this command you must be using a General tool.

- *Reports are based on a single stack:* Each report is based on information from a single stack. There is no way to combine information from two separate stacks into a single report.

When you choose Print Report, the dialog box in Figure 6-13 appears.

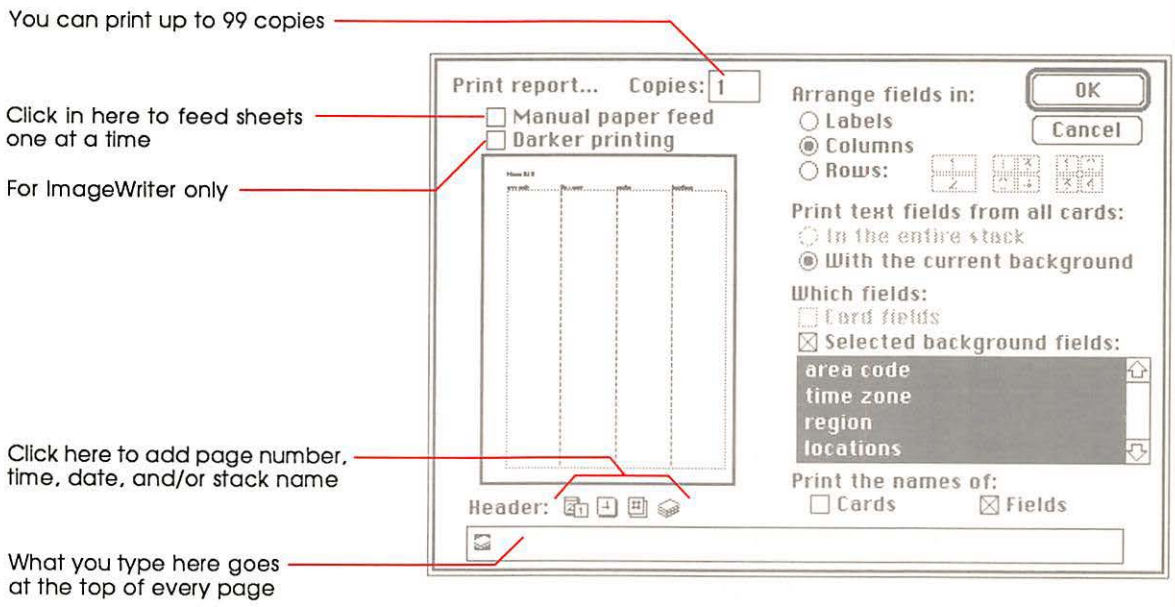


Figure 6-13
Print Report dialog box

You can print reports in three formats—labels, columns, or rows.

Here's a list of alternatives showing the various combinations of fields that can appear in your reports. (You can use only the last alternative for the column format.)

- ☐ all card fields in the stack
- ☐ all background fields in the stack
- ☐ all background and all card fields in the entire stack
- ☐ all card fields from cards with the current background
- ☐ all card fields from cards with the current background, plus all or some of the current background fields
- ☐ all or some fields from the current background

To a print a report based on one of these alternatives, you must click buttons and check boxes on the Print Report dialog box in the proper combination.

Table 6-2 shows you those combinations.

Table 6-2
Controlling the printout of a report

To print...	Click this radio button ...and...	Check only these boxes
All card fields in entire stack	◉ In the entire stack	☒ Card fields
All background fields in entire stack	◉ In the entire stack	☒ Background fields
All card fields & all background fields in entire stack	◉ In the entire stack	☒ Card fields ☒ Background fields
All card fields of cards with current background	◉ With the current background	☒ Card fields
*Selected background fields of cards with current background	◉ With the current background	☒ Selected background fields
All card fields and selected background fields of cards with current background	◉ With the current background	☒ Card fields ☒ Selected background fields

*This is the only format available for printing in columns.

When you check "Selected background fields," you activate a selection box from which you select fields to print from the current background.

- **To select a field, click its name.**

  Use the Scroll bar to look through the list of field names.

- **To select more than one field, hold down the Shift key as you select each name.**
- **To deselect a field, click its name.**
- **To deselect a field when more than one are selected, hold down the Shift key as you click.**

Field printing order

The order in which you select fields determines their printing order. On labels, the first field you select goes on the top line of the label, the second field goes on the second line, and so on. In the column format, the order in which you select fields determines their left-to-right printing order. In the row format, the first field you select goes on the top line of the card block, the second field goes on the second line, and so on.

Labels

Clicking this button makes HyperCard print the fields you've selected in a format suitable for labels. Each label contains text from the fields of one card. HyperCard automatically centers the text in each label.

You can change the number of labels per sheet and the size and spacing of the labels by dragging on the highlighted parts of the dialog box's minipage window.

As you change the dimensions of labels by dragging in the minipage window, HyperCard shows you the maximum number of labels that will fit on a page. Changes you make in the position or size of the labels are reflected in the measurements at the bottom of the window; use the numbers that appear there as a guide. See Figure 6-14.

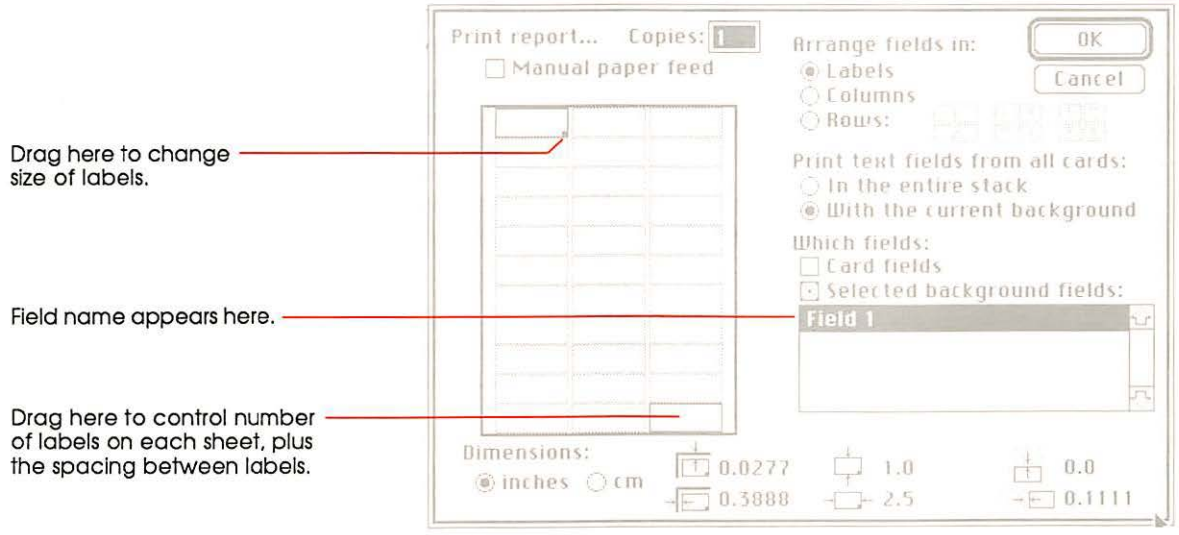


Figure 6-14
Print Report in label format

If text on a line in a field is too wide for a label, HyperCard wraps the text onto the next line. If there are too many lines to fit on a label, HyperCard prints what will fit.

- *About LaserWriter labels:* Only use labels made especially for LaserWriters or photocopiers. Check "Larger Print Area" under Options on the Page Setup dialog box for better centering of text on the labels that run along the left and right edges of the page.
- *About ImageWriter labels:* Use labels that are on 8.5-by-11-inch tractor-feed pages.

Columns

In the column format, selected fields from the current background are printed side by side in vertical columns across the page. Each field has its own column. (See Figure 6-15.)

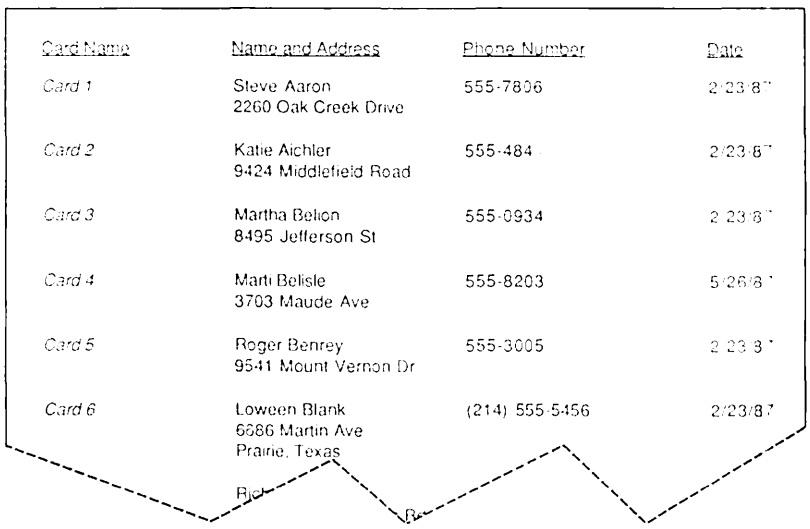
Important You must have "With the current background" checked for the column format to work.

If a column is too narrow for the entire contents of a field to fit on one line, HyperCard wraps the text to new lines as appropriate.

HyperCard won't let you select more fields than will fit across the page. You can see how many will fit by looking at the minipage window.

You can control the horizontal width of each column by dragging the dashed separation lines.

If you check Cards under "Print the names of," card names appear in their own column on the far left. If you check Fields, field names are printed across the top of the page above the appropriate column. If a column is too narrow for the entire field name to fit, the field name is truncated.



Card Name	Name and Address	Phone Number	Date
Card 1	Steve Aaron 2260 Oak Creek Drive	555-7806	2/23/87
Card 2	Katie Aichler 9424 Middlefield Road	555-484	2/23/87
Card 3	Martha Belion 8495 Jefferson St	555-0934	2/23/87
Card 4	Marti Belisle 3703 Maude Ave	555-8203	5/26/87
Card 5	Roger Benrey 9541 Mount Vernon Dr	555-3005	2/23/87
Card 6	Loween Blank 6686 Martin Ave Prairie, Texas	(214) 555-5456	2/23/87

Figure 6-15
Print Report in column format

Rows

In the Row format, information from each card is printed as a block. Fields read vertically down the page for each card.

The 3 row layouts

You can choose among three different layouts to determine the sequence of printing, and the amount of space across the page that's allocated to each block.

If you click on the left layout, each field's information is printed across the width of the page, each field below the previous one. With the center and right layouts, HyperCard prints blocks of information for two cards side by side. (See Figure 6-16.)

Here are the layouts.

Drag here to change printed field width.

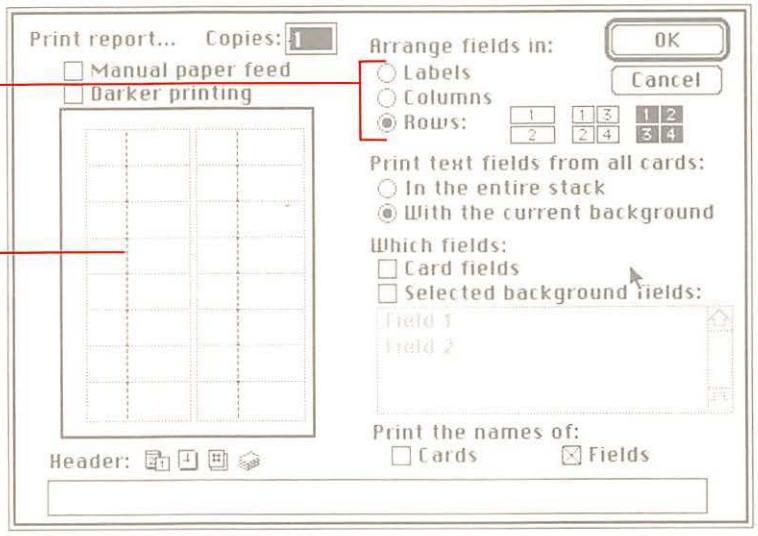


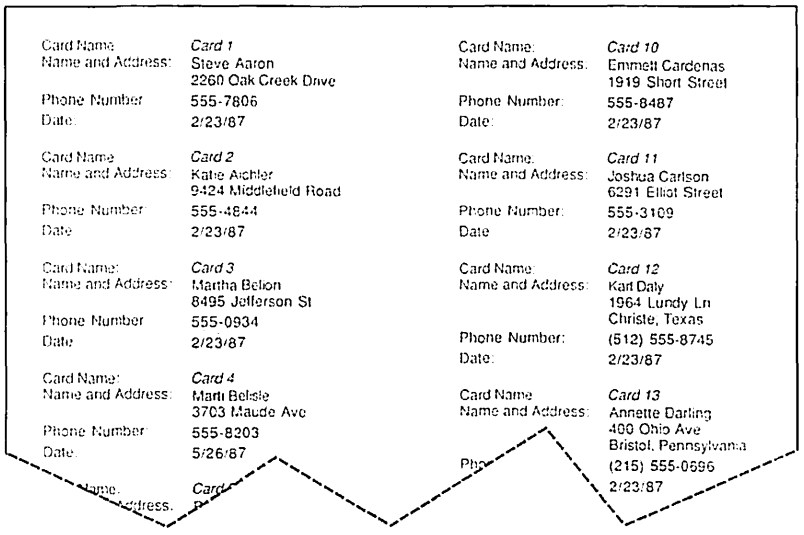
Figure 6-16
Print Report in row format

The card sequence in which the information is printed depends on the layout order you select. If you select the layout order in the center, reports appear beneath each other in the left column until page bottom; The next card's report appears at the start of the right column. If you select the layout order on the right, the block reports alternate left-right down the page. (See Figures 6-17 and 6-18.)

The numbers refer to card position in the stack

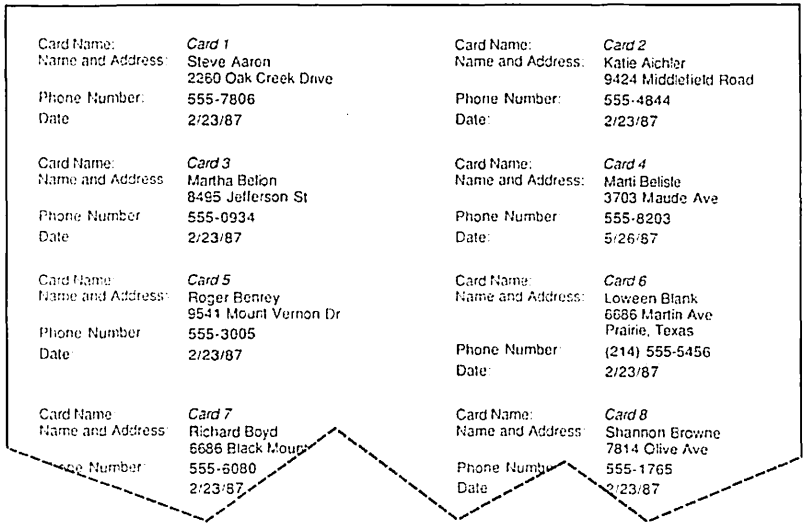
If you check Fields under "Print the names of" the name of each field is printed to the left of the field's contents. (If the field is empty, HyperCard skips it and doesn't print the field's name.) You can grab the vertical dotted line and drag it to adjust the width for the name. Card names are printed at the top of each card's block.

Card blocks are printed in the order that the cards appear in the stack.



Card Name:	*Card 1*	Card Name:	*Card 10*
Name and Address:	Steve Aaron 2260 Oak Creek Drive	Name and Address:	Emmett Cardenas 1919 Short Street
Phone Number:	555-7806	Phone Number:	555-8487
Date:	2/23/87	Date:	2/23/87
Card Name:	*Card 2*	Card Name:	*Card 11*
Name and Address:	Katie Aichler 9424 Middlefield Road	Name and Address:	Joshua Carlson 6291 Elliot Street
Phone Number:	555-4844	Phone Number:	555-3109
Date:	2/23/87	Date:	2/23/87
Card Name:	*Card 3*	Card Name:	*Card 12*
Name and Address:	Martha Belon 8495 Jefferson St	Name and Address:	Karl Daly 1964 Lundy Ln Christe, Texas
Phone Number:	555-0934	Phone Number:	(512) 555-8745
Date:	2/23/87	Date:	2/23/87
Card Name:	*Card 4*	Card Name:	*Card 13*
Name and Address:	Marti Belisle 3703 Maude Ave	Name and Address:	Annette Darling 400 Ohio Ave Bristol, Pennsylvania
Phone Number:	555-8203	Phone Number:	(215) 555-0696
Date:	5/26/87	Date:	2/23/87
Card Name:	*Card 5*		
Name and Address:	Roger Benrey 9541 Mount Vernon Dr		
Phone Number:	555-3005		
Date:	2/23/87		
Card Name:	*Card 7*		
Name and Address:	Richard Boyd 6686 Black Mount		
Phone Number:	555-6080		
Date:	2/23/87		

Figure 6-17
Print report in row format, top to bottom order



Card Name:	*Card 1*	Card Name:	*Card 2*
Name and Address:	Steve Aaron 2260 Oak Creek Drive	Name and Address:	Katie Aichler 9424 Middlefield Road
Phone Number:	555-7806	Phone Number:	555-4844
Date:	2/23/87	Date:	2/23/87
Card Name:	*Card 3*	Card Name:	*Card 4*
Name and Address:	Martha Belon 8495 Jefferson St	Name and Address:	Marti Belisle 3703 Maude Ave
Phone Number:	555-0934	Phone Number:	555-8203
Date:	2/23/87	Date:	5/26/87
Card Name:	*Card 5*	Card Name:	*Card 6*
Name and Address:	Roger Benrey 9541 Mount Vernon Dr	Name and Address:	Loween Blank 6686 Martin Ave Prairie, Texas
Phone Number:	555-3005	Phone Number:	(214) 555-5456
Date:	2/23/87	Date:	2/23/87
Card Name:	*Card 7*	Card Name:	*Card 8*
Name and Address:	Richard Boyd 6686 Black Mount	Name and Address:	Shannon Browne 7814 Olive Ave
Phone Number:	555-6080	Phone Number:	555-1765
Date:	2/23/87	Date:	2/23/87

Figure 6-18
Print report in row format, left to right order

Manual paper feed

Check the manual paper feed box if you're feeding paper by hand; HyperCard will stop the printer after each sheet and wait for you to add more paper.

Header

Tab to the Header box and type what you want to appear as a heading at the top of each sheet. Click the proper icon(s) after you tab to add page numbers, the date, the current time, and the stack name to the header. Click icons in the order you want them to appear in the heading. (Use the space bar to separate them.) You can preview what the header will produce by looking in the minipage window.

Format remembered

Once you print a report, HyperCard remembers the format and header you used for that stack's report so you can use the same setup next time you print.

Quit HyperCard

Quit HyperCard (or Command-Q) leaves HyperCard, automatically saving any changes you've made.

Edit Menu

The Edit menu lets you change your work. Undo, Cut, Copy, Paste, and Clear all work as they're described in the owner's guide that came with your computer. The other commands are unique to HyperCard.

The different Edit menus

The level set on the User Preferences card of the Home stack, in conjunction with the protection level set for a particular stack, determines which menu appears when you press Edit. If either level is set to Browsing or Typing, you choose a command from the short menu (left in Figure 6–19). Otherwise you choose from a full menu (right in Figure 6-19).

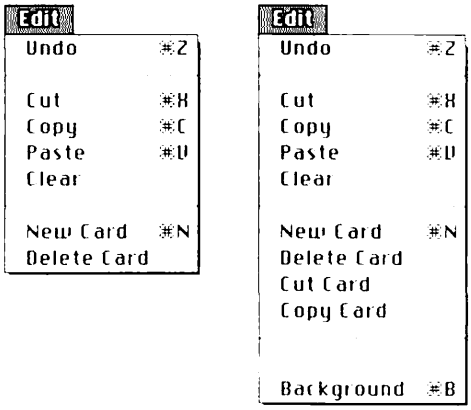


Figure 6-19
Short and full Edit menus

For information on user levels, see "User Preferences" in Chapter 3. For information on individual stack protection, see "Protect Stack" earlier in this chapter.

Undo

⌘ - Z

Undo (or Command-Z) undoes your last action on a card or background. Use it when you make a mistake or when you change your mind about some action.

~ or esc

With the Paint tools, pressing Tilde or Escape is the same as choosing Undo.

Cut

Cut (or Command-X) removes the selected information from the card or background and puts it on the Clipboard. Use Cut when you want to move something from one place to another.

Cutting a picture

When you're using a Paint tool, Cut affects either the background picture or the card picture, depending on whether the Background command in the Edit menu is checked or unchecked.

- To cut a picture:

1. **Select the portion of the picture you want to cut.**

   Use either the Lasso or the Selection tool to do it. (See "Lasso" and "Selection Tool" later in this chapter.)

2. **Choose Cut from the Edit menu.**

   You can also press Command-X.

Cutting buttons and fields

When you cut a button, you also cut its associated actions. If you paste the button, you paste its actions along with it.

Important Buttons and the pictures representing them are often separate. This is always the case if a button is transparent. Remember to cut and paste the picture as well as the button. (You'll have to cut and paste them separately.)

When you cut a field, all text and attributes (field name, font, and so on) belonging to that field are cut along with it. If you paste back that field in the same or another stack, you also paste back its attributes, but not its text.

- To cut a button or a field:

1. **Select the button or field tool.**
2. **Click the specific button or field you want to cut.**
3. **Choose Cut from the Edit menu (or press Command-X).**

Cutting a card

- To cut a card:

1. **Move to the card you want to cut.**
2. **Choose Cut Card from the Edit menu.**

When you cut a card, you cut everything on it—picture, fields, text, buttons, actions, and a copy of that card's background.

Cutting a background

You can't cut a background. To remove a background from a stack, you must delete every card that uses that background. If there is only one card in the stack, you must delete the stack.

Copy

Copy (or Command-C) makes a copy of the selected information and puts it on the Clipboard. The selected information is left unaffected (but whatever was on the Clipboard is replaced). If you're using a Paint tool and nothing is selected, all the Paint information is copied.

Copying a picture

When you're using a Paint tool, Copy gets its information from either the background picture or the card picture, depending on whether the Background command in the Edit menu is checked or unchecked.

- To copy a picture:

1. **Select the portion of the picture you want to Copy.**

   Use either the Lasso or the Selection tool to do it. (See "Lasso" and "Selection Tool" later in this chapter.)

2. **Choose Copy Picture from the Edit menu.**

   You can also press Command-C.

3. **Move to the card where you want the copied picture to appear.**

   Moving between cards or stacks doesn't affect what's on the Clipboard, the holding place for what you copied.

4. **Choose Paste Picture from the Edit menu.**

   Or press Command-V. The copied picture appears.

5. **Drag the picture where you want it to be on the card.**
6. **Click anywhere outside the pasted area.**

Copying buttons and fields

When you copy a button, you also copy its actions. If you paste the button, you paste its actions along with it.

Important Buttons and the pictures representing them are often separate. This is always the case if a button is transparent. Remember to copy the picture as well as the button. (You'll have to copy them separately.)

When you copy a field, all you copy is the field itself; you don't copy the field's text.

- To copy a button or a field:

1. **Select the button or field tool.**
2. **Click the specific button or field you want to copy.**
3. **Choose Copy Button or Copy Field from the Edit menu (or press Command-C).**
4. **Move to the card where you want the copied button or field to appear.**

   Moving between cards or stacks doesn't affect what's on the Clipboard, the holding place for what you copied.

5. **Choose Paste Button or Paste Field from the Edit menu.**

   Or press Command-V. The copied button or field appears.

6. **Drag the button or field where you want it to be on the card.**
7. **Click anywhere outside the pasted area.**

Copying a card

- To copy a card:

1. **Choose Copy Card from the Edit menu.**

   A copy of the current card is placed onto the Clipboard.

2. **Move to the card after which you want the copied card to appear.**

   It can be in the current stack or in any other stack.

3. **Choose Paste Card from the Edit menu.**

   Or press Command-V. The pasted card becomes the current card.

■ To change a card's position so that it's first in a stack:

1. **Move to the card whose position you want to change.**
2. **Choose Cut Card from the Edit menu.**
3. **Choose First on the Go menu.**

   Or press Command-1. The first card in the stack appears.

4. **Choose Paste Card on the Edit menu.**

   Or press Command-V. The pasted card appears on the screen; it is now the second card in the stack.

5. **Choose First on the Go menu again.**

   Or press Command-1. The first card in the stack appears.

6. **Choose Cut Card on the Edit menu.**

   The card you had originally set out to reposition is now first in the stack.

7. **Choose Paste Card on the Edit menu.**

   (Or press Command-V.) The original first card is now second in the stack.

When you copy a card, you copy everything associated with it—background, picture, fields, text, buttons, and actions.

Copying a background

You copy a background by copying the card that has the background you want. (A copied card takes everything with it.)

■ To copy a background:

1. **Copy a card that has the background you want.**
2. **Move to where you want the new background.**
3. **Paste the copied card.**
4. **Make new cards based on the copied card's background.**
5. **Delete the original pasted card.**

You can't replace an existing card's background.

Paste

Paste (or Command-V) takes a copy of the material that's on the Clipboard and puts it on the screen.

- If the material is regular text, it appears at the insertion point of a field you've chosen.
- If the material is a picture, it appears at the screen position at which it was cut.
- If the material is a field or button, it appears at the screen position at which it was cut. (You can move a pasted selection by dragging within the selection.) Pasted buttons and fields retain all their original actions.
- If the material is a card, it appears after the current card in the stack. A pasted card pastes its background as well (assuming the background is different from the ones surrounding it).

When you're using a Paint tool, the material you're about to paste can be text or a picture. If the material is regular text (that is, text created with the Text tool), shrinking the selection by dragging the corners with the Command key pressed makes more or less of the text appear. (The text wraps at the right border of the selection.) The text becomes a picture after you've pasted it and clicked outside the selected area.

Pictures are pasted in opaque; if you want the background to show through, choose Transparent from the Paint menu after you've pasted onto the card, but *before* you've clicked outside the pasted area to make the changes complete.

Pasting a card in miniature

You can paste a picture of a card in miniature, like the cards that appear when you choose Recent from the Go menu.

- To paste a miniature:

1. **Choose Copy Card or Cut Card from the Edit menu.**
2. **Move to the card where you want to paste the miniature.**
3. **Press and hold the Shift key while you choose Paste Card.**
   Alternately, press Command-Shift-V.

The miniature appears selected in the center of the screen.

Note that this is a picture of a card—none of the actions from the original card come with the miniature.

Clear

Clear removes the selected information without putting it on the Clipboard or affecting what's already on the Clipboard.

When you're using a Paint tool, Clear affects either the selected background picture or the selected card picture, depending on whether the Background command in the Edit menu is checked or unchecked.

When the Message box is visible and the insertion point is not visible, Clear empties the Message box and puts the insertion point in it.

Pressing the Delete or Backspace key (or the Clear key on the keypad) has the same effect as Clear.

New Card

New Card (or Command-N) adds a card to the current stack. The new card automatically picks up the background picture, background buttons, and fields of the card you're looking at.

The new card is inserted immediately after the card you were looking at. You end up looking at the card you just inserted.

- To make the new card the first one in the stack:

1. **Choose First on the Go menu.**

   Or press Command-1. The first card in the stack appears.

2. **Choose New Card on the Edit menu.**

   Or press Command-N. The new card appears on the screen; it is now the second card in the stack.

3. **Choose First on the Go menu again.**

   Or press Command-1. The first card in the stack appears again.

4. **Choose Cut Card on the Edit menu.**

   The card you had originally set out to reposition is now first in the stack.

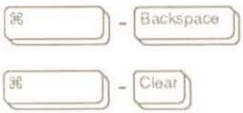
- If you want to place the cut card back into the stack, you need to follow two more steps:

1. **Move to the card you want to come immediately before the one you've just cut.**
2. **Choose Paste Card on the Edit menu.**

   Or press Command-V.

The pasted card appears on the screen in its new position in the stack.

Delete Card



Delete Card (or Command-Backspace or Command-Clear) permanently eliminates the current card. Delete Card works exactly like Cut Card, except that the deleted card does not go onto the Clipboard and so cannot be pasted anywhere.

You can't delete the last card in a stack. To delete the last card, use Delete Stack from the Stack menu.

Cut Card

Cut Card (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) removes the card on the screen, deletes it from the stack, and puts up the next card in the stack. HyperCard doesn't ask you to confirm the cut—it just does it.

You can't cut the last card in a stack. To cut the last card, use Delete Stack from the Stack menu.

Copy Card

Copy Card (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) makes a copy of the current card and puts it on the Clipboard. Whatever was on the Clipboard is replaced.

When you copy a card, you copy everything associated with it—background, picture, fields, text, buttons, and actions.

Text Style

Text Style, or Command-T, (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) lets you set text properties for the active field or the active **Paint text.** (Paint text is text created using the Paint Text tool.) Paint text is active until you

- switch tools after you've typed,
- click the mouse,
- leave the card, or
- switch into or out of the background.

A field is active if the insertion point is in it.

A dialog box appears, letting you choose text font, style, alignment, size, and the height of each line in points.

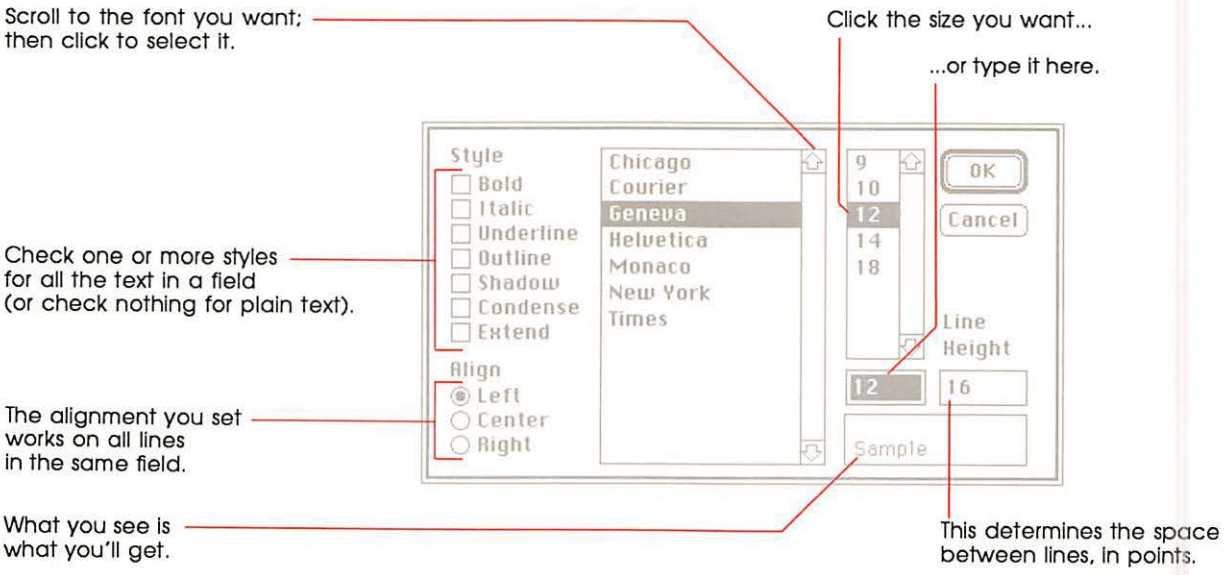


Figure 6-20
Text styles dialog box

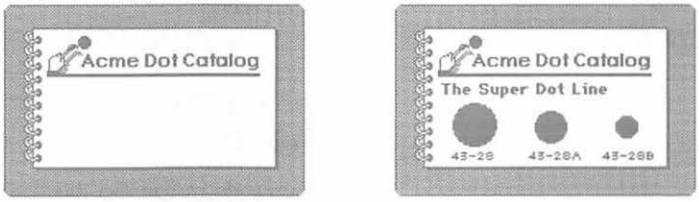
See "Setting Text Properties" in Chapter 4 for more information.

Background

⌘ - B

Background, or Command-B, (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) lets you edit the background picture and create background buttons and fields.

The background serves as a template; whatever's in the background is common to all cards associated with that background.



Background alone

With transparent card picture

Figure 6-21
Background versus card picture

The background picture is hidden by any black or opaque portions of the card picture. (You choose Transparent and Opaque from the Paint menu, described later in this chapter.)

A background button works for all cards associated with that background; unless it's covered by a card button; a background field appears in the same location on all cards associated with that background, unless it's covered by a card field.

Important The most common mistake in creating a button or a field is putting it on a card when it's supposed to be on a background. After you've created one or more background buttons or fields, choose Background again to get back to the Card level, and flip to the next card; if the buttons or fields you've just created are on that card too, you've succeeded.

When you're working in a background, the menu bar is striped, and a check mark appears to the left of the Background command in the Edit menu. (See Figure 6-22.)

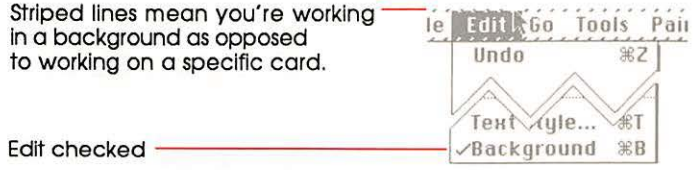


Figure 6-22
Menu bar striped while working in background

There's no limit (beyond disk space) to the number of backgrounds a stack can have.

Go menu

Use commands in the Go menu to navigate through stacks. You can look through cards in the current stack, go back through cards and stacks you've already seen, or immediately get to any stack represented on the Home card.

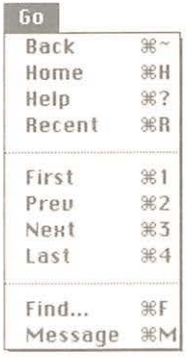


Figure 6-23
Go menu

Back

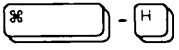
~ - esc or ↓

The Back command (or Tilde, Esc, or Down Arrow) takes you to the most recent card you've viewed. Keep choosing this command to review up to the last 100 cards you've seen.

After you've backed through cards, you can press the Up Arrow key to come forward again through the reviewed cards.

When you're using a Paint tool, use Command-Tilde (or Command-Esc) instead of Tilde as a shortcut for the Back commands. (Pressing Tilde alone in a Paint tool undoes your last action.)

Home



Home (or Command-H) selects the Browse tool and takes you to the Home card, the first card in the Home stack. The Home card is special—it's meant to hold buttons that bring you to the most important cards in your collection.

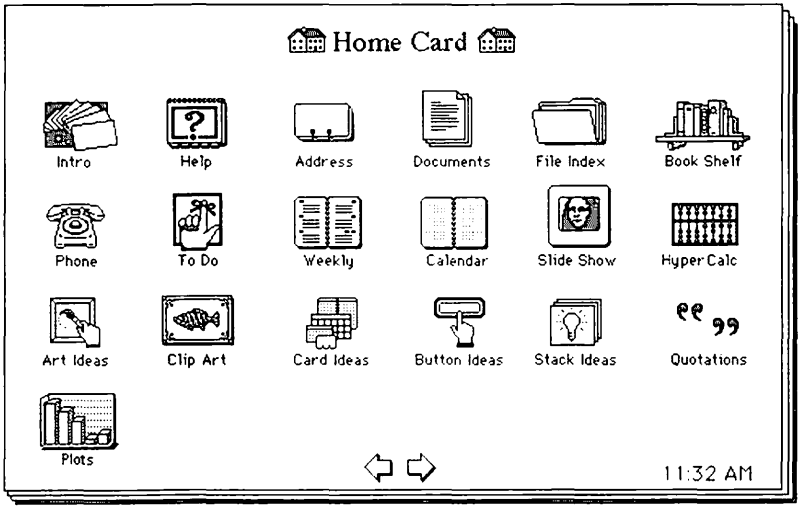


Figure 6-24
Home card

To go to any stack represented on the Home card, click on its picture. (Each picture is actually a button.)

For more details about the Home card and the rest of the Home stack, see Chapter 3.

Help

⌘ - ?

Help (or Command-?) takes you to the first card in the Help system. The Help system describes everything in HyperCard, including some features not covered in this manual. It is the ultimate source of HyperCard information.

When you use Command-? as a shortcut to choosing Help, you don't have to press the Shift key.

Recent

⌘ - R

Recent (or Command-R) lets you backtrack through any or all of the last 42 cards you viewed.

When you look at a card, HyperCard puts a miniature picture of it on Recent. To go back to that card, just click that card's picture.

Although you might have looked at the same card several times, Recent holds only one picture of it.

Click any image to go to that card.

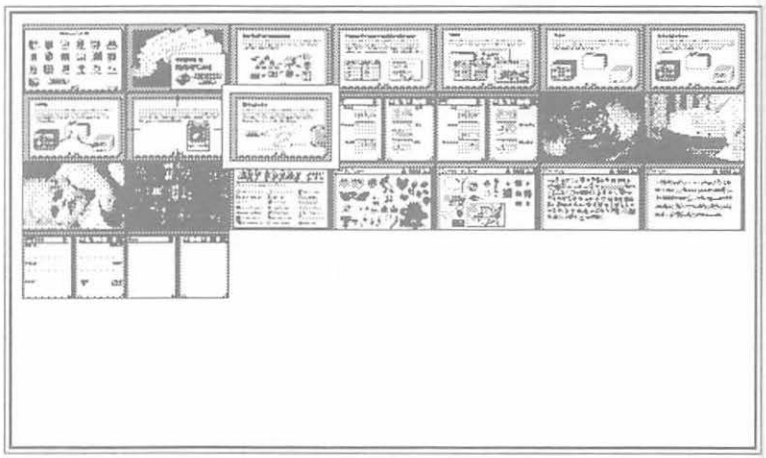
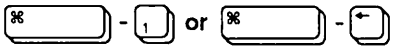


Figure 6-25
Recent

You can go back through the last 100 cards you viewed in the order that you viewed them by using the Back command (or by pressing Tilde), described earlier in this section.

To return to the card you most recently viewed, click the picture of the card with the box around it or press Return.

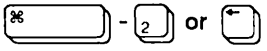
First



First (Command–1 or Command–Left Arrow) takes you to the first card in the current stack.

If you're already at the first card, First does nothing.

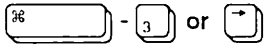
Prev



Prev (Command-2 or Left Arrow) takes you to the previous card in the current stack. If you're at the first card in the stack, Prev wraps you around to the last card in the stack.

- *Prev isn't Back:* Prev takes you to the previous card in the current stack; Back takes you to the card you last looked at. The last card you looked at might have been in another stack.

Next



Next (Command-3 or Right Arrow) takes you to the next card in the current stack. If you're at the last card, Next wraps you around to the first card.

Last

Last (Command–4 or Command–Right Arrow) takes you to the last card in the current stack. Use last when you want to create a new card at the end of the stack.

If you're already at the last card, Last does nothing.

Find

Find (or Command-F) searches for text in the fields of the current stack. Choosing Find brings up the Message box, as it appears in Figure 6-26.

The insertion point comes up between the quotation marks.

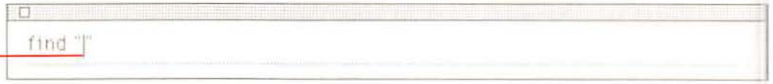


Figure 6-26
Message box

- To search for text:

1. **Choose Find from the Go menu.**
2. **Type what you want to find.**

   Or press the Command key as you select up to a line of characters from any text field. (A box appears around the text as you select it.)

3. **Press Return or Enter.**

HyperCard searches the current stack for a series of characters in any field that begins with what's in the Message box. HyperCard looks for the first card that contains everything between the quotation marks, even if the words appear in a different order.

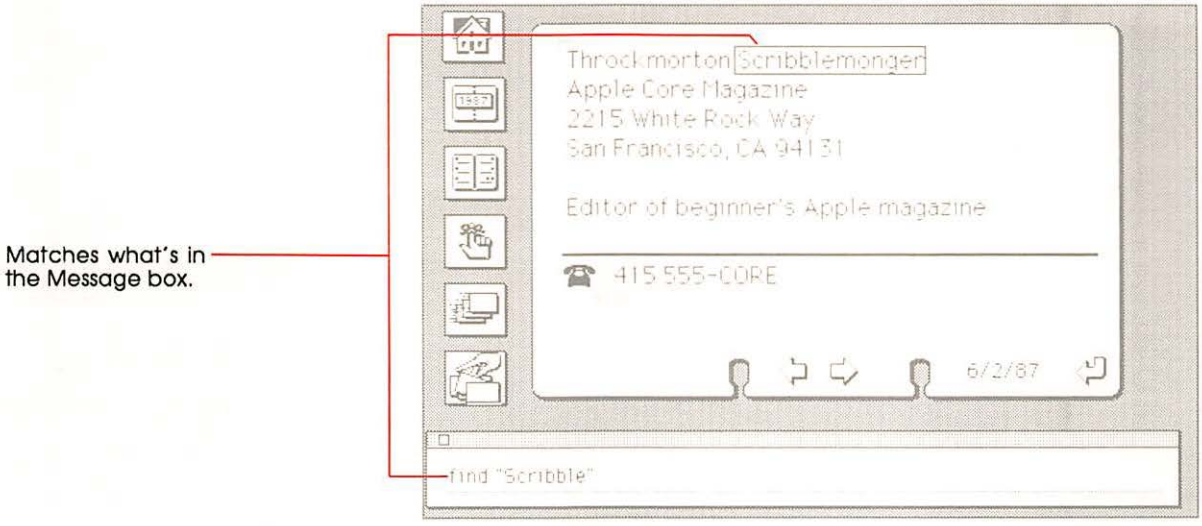


Figure 6-27
Finding a name

Pressing Return after a search makes HyperCard repeat the search.

If you choose Find again after an initial search, HyperTalk selects what you've typed between the quotation marks. To replace what's in the Message box, just type something new.

❖ *Watch those quotation marks:* The text that you want to find must appear between quotation marks after the word "find."

To cancel a search-in-progress, press Command-period (.).

If HyperCard can't find the text, the Macintosh beeps.

Searching in a specific field

HyperCard automatically searches through all the fields on all the cards in the current stack. You can limit the search to one specific field.

- To limit the search to a specific field:
- **Click after the last quotation mark and type a space, the words `in field`, and the field number or name.**

To search only card fields, type the words `in card field` and the field name or number.

Figure 6-28 shows an example.

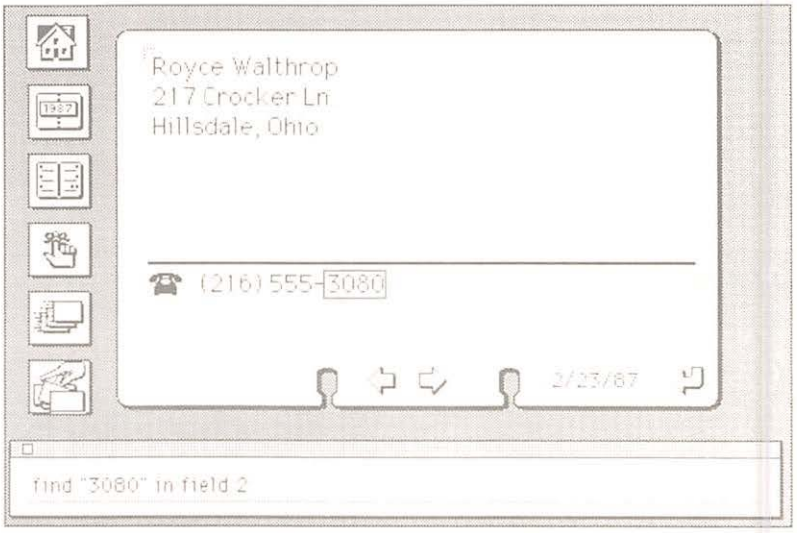


Figure 6-28
Limiting the search

- To find the name or number of a field:
- **Click in the field with the Browse tool selected and choose Field Info from the Objects menu.**

Alternatively, take the following steps:

1. **Click the Field tool.**
   To use the Field tool, you must have Authoring or Scripting checked on the User Preferences card in the Home stack.
2. **Click the field whose name or number you want to know.**
3. **Choose Field Info from the Objects menu.**
   Or just double-click in the field you're interested in.

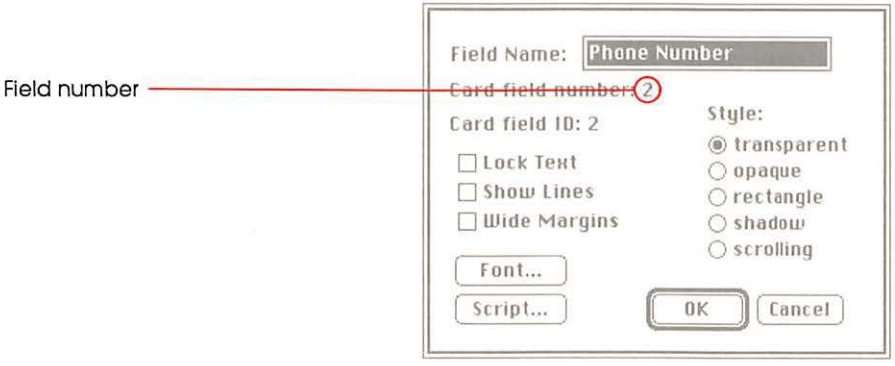


Figure 6-29
Finding out a field's number

Message

⌘ - M

Message (or Command-M) shows the Message box. Use the Message box to send any one-line message to HyperCard.

■ To send a message:

1. Make sure the insertion point is in the box by clicking in it.

2. Type the message.

3. Press Enter or Return.

Figure 6-30
Sending a message

⌘ - .

■ To stop a message-in-progress:

■ **Press Command-period (.).**

To clear the Message box so you can use it again, do any of the following:

□ Choose Message box again from the Go menu.

□ Press Command-M.

□ Select all the text in it and press Clear or Backspace.

□ Select all the text in it and type a new message.

To hide the Message box, click its close box (or press Command-M).

To type messages into the Message box when the box isn't visible, check Blind Typing on the User Preferences card in the Home stack.

See Appendix A for a list of the most common HyperCard messages.

For detailed information on all HyperCard messages and other advanced HyperCard topics, see the *HyperCard Script Language Guide.*

Tools menu

You use tools to browse, to edit text and pictures, and to create and change buttons and fields. You can have only one tool selected at a time. One tool—any tool—must be selected.

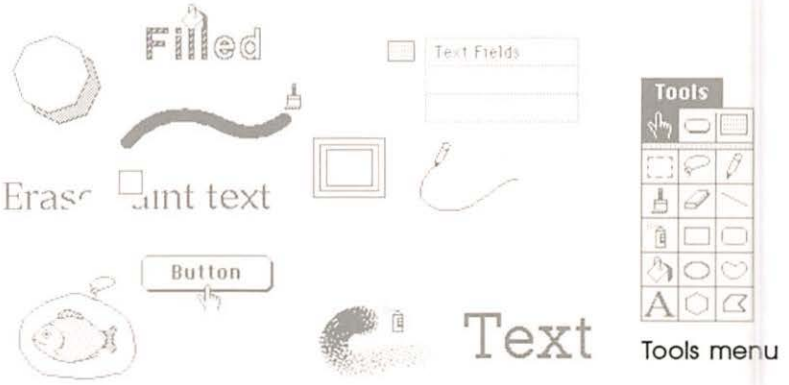


Figure 6-31
Tools in action

The Tools menu appears when Painting, Authoring, or Scripting is checked on the User Preferences card in the Home stack.

The Tools menu holds the General and Paint tools. General tools are on the menu's top line; they control browsing, text creating and editing, and button creating and selecting. Paint tools, which fill the rest of the menu, control creating and editing pictures.

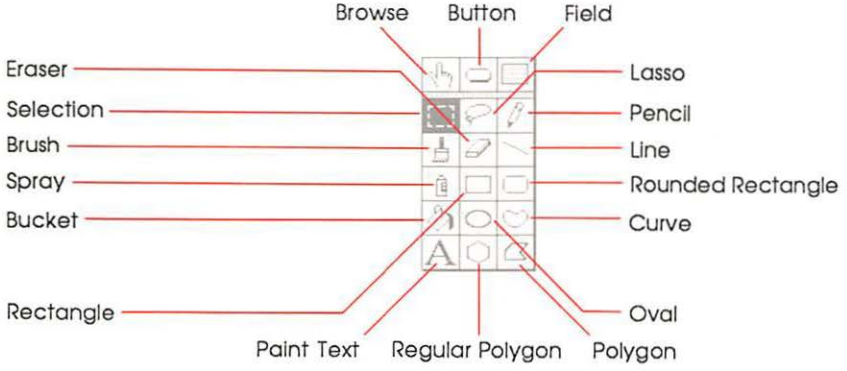


Figure 6-32
Tool names

You can "tear off" the Tools menu, creating a movable tools palette.

- To create a movable Tools palette:
- **Drag down through the menu, either past the bottom or beyond either side.**

  You can also press Option-Tab to make a Tools palette appear and disappear.

Put the palette wherever you want.

To put it away, click its close box. To move the palette around, grab it by its top bar or by any edge. To select a tool, click it. (You can also select a tool from the Tools menu in the Menu bar, even if you have a palette torn off; the palette will reflect the menu selection.)

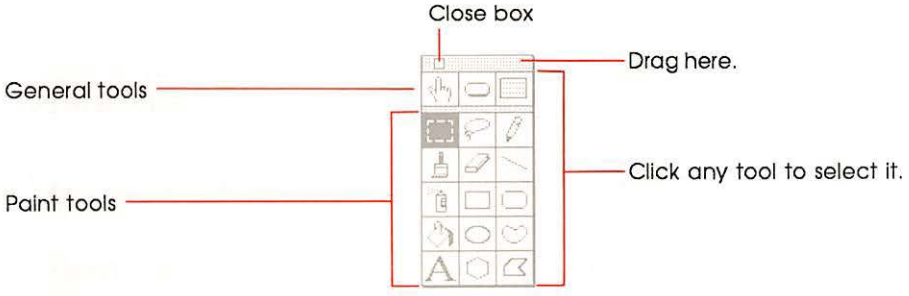


Figure 6-33
Using the Tools palette

- **To select a tool, click inside the box that holds it.**

  The tool you select becomes highlighted in the menu, and, depending on the tool you've selected, the shape of the pointer might change.

Authoring or Scripting must be checked on the User Preferences card in the Home stack if you want to select the Button tool or Field tool.

Menu bar changes

When you choose one of the Paint tools, three new menus appear—Paint, Options, and Patterns. (These menus are described later in this chapter.) If the Objects menu was visible, it disappears; it reappears (and the Paint, Options, and Patterns menus all go away again) when you choose a General tool.

Browse tool

Browse tool

When you select the Browse tool, the pointer becomes a hand with the first finger extended. Use the Browse tool to click buttons, to edit text, and to select text for searching. The Browse tool converts to an I-beam when it's over editable text when any level except Browsing is checked on the User Preferences card in the Home stack.

I-beam pointer

In its I-beam shape, the pointer lets you type and edit text in fields (described elsewhere in this chapter and in Chapter 4). Click in the field where you want to type.

To learn about editing text in the Macintosh, see the owner's guide that came with your computer.

For detailed information about text and the fields that text appears in, see Chapter 4 of this guide.

For a detailed tutorial on browsing and editing, see Chapter 1, "Browsing and Editing."

For information on typing text not limited to fields, see "Paint Text Tool" later in this chapter.

Button tool

Button tool

Use the Button tool to make new buttons or to see buttons that already exist.

To use the Button tool, make sure that Authoring or Scripting is checked on the User Preferences card in the Home stack.

When you choose the button tool, the buttons on the card and the card's background appear surrounded by a thin-lined box; a selected button is surrounded by a moving dotted line.

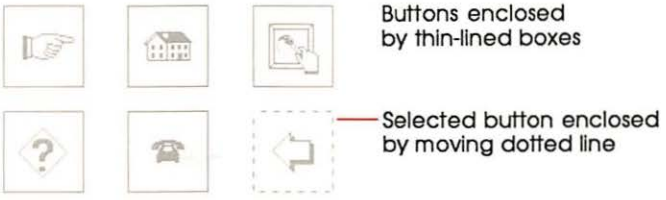


Figure 6-34
Buttons with button tool selected

- To create a button:
- **Choose New Button in the Objects menu.**

  Alternatively, select the Button tool; then press the Command key and drag diagonally.

- To create a button that appears automatically on all cards that share a particular background:

1. **Choose Background from the Edit menu.**
2. **Choose New Button in the Objects menu.**

   Alternatively, select the Button tool, press the Command key, and drag diagonally.

Important The most common mistake in creating a button is putting it on a card when it's supposed to be on a background. After you've created one or more buttons, flip to the next card; if the buttons you've just created are on that card too, you've created background buttons.

- To select a button:

1. **Select the Button tool.**
2. **Click the button you want to select.**

To size a selected button, drag by any corner.

To move a selected button, drag by any edge; or place the pointer inside the button and drag.

To duplicate a selected button, press Option while you drag.

To copy a button, select it and choose Copy Button from the Edit menu (or press Command-C).

To cut a button, select it and choose Cut Button from the Edit menu (or press Command-X).

To eliminate the button without affecting the Clipboard, select it and choose Clear Button from the Edit menu (or press Backspace or the Clear key).

❖ *Browse tool versus Button tool:* You must be using the Browse tool to click buttons. After you've created a button and you want to test it, be sure to select the Browse tool first.

■ To bring up information about a particular button:

1. **Select the Button tool.**
2. **Click the button you're interested in.**
3. **Choose Button Info from the Objects menu.**

   (Alternately, choose the button tool and double-click the button you're interested in.) The Button Info dialog box appears. (See Figure 6-35.)

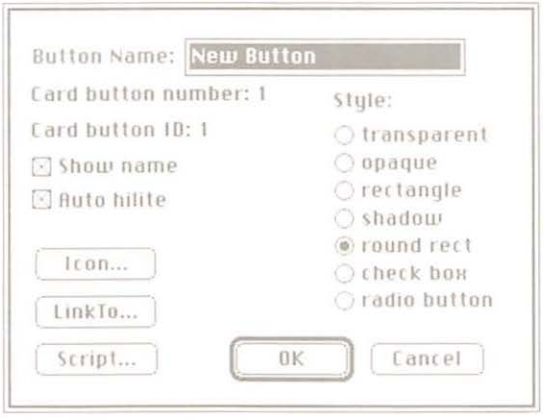


Figure 6-35
New Button dialog box

To see all the buttons on a card and the background when the Button tool is not selected, press the Command key and the Option key at the same time.

To read about labeled buttons and buttons with different shapes (and to get detailed information about the dialog box in Figure 6-35), see "Button Info" in the Objects Menu section of this chapter.

For information about scripts, see the *HyperCard Script Language Guide*.

Field tool

Field tool

Use the Field tool to create and change text fields. You can have fields on a specific card as well as fields common to all cards associated with a given background.

To use the Field tool, make sure that Authoring or Scripting is checked on the User Preferences card in the Home stack.

You can have as many fields on a card or a background as will fit. The number of lines in a field depends on that field's physical size, the point size of the text within the field, and on the height of a single line within the field. (See the Height box in the Text Properties dialog box, elsewhere in this chapter.)

To create a field, choose New Field from the Objects menu. Alternatively, select the Field tool; then position the pointer and, while holding down the Command key, drag diagonally.

- To create a field for every card associated with a particular background:

1. **Choose Background from the Edit menu.**
2. **Choose New Field from the Objects menu.**

   Alternatively, select the Field tool, press the Command key, and drag diagonally.

Important The most common mistake in creating a field is putting it on a card when it's supposed to be on a background. After you've created one or more fields, flip to the next card; if the fields you've just created are on that card too, you've created background fields.

- To select a field:

1. **Click the field tool to select it.**
2. **Click inside the field you want to select.**

To size a selected field, drag by any corner.

To move a selected field, drag by any edge; or place the pointer inside the field and drag.

To duplicate a selected field, press Option while you drag.

To copy a field, select it and choose Copy Field from the Edit menu (or press Command-C).

To cut a field and all its accompanying text, select the field and choose Cut Field from the Edit menu (or press Command-X).

To eliminate the field without affecting the Clipboard, select it and choose Clear Field from the Edit menu (or press Backspace or the Clear key).

Warning Deleting a background field also deletes all text in that field on all cards sharing that background. Once you've deleted the field, it and all its text are gone for good—you can't undo the deletion.

- To bring up information about a particular field:

1. **Click the field tool to select it.**
2. **Click the field you're interested in.**
3. **Choose Field Info from the Objects menu.**

   Or just double-click the field you're interested in. The dialog box in Figure 6-36 appears.

Alternatively, move the insertion point to the field you want to know about and choose Field Info from the Objects menu.

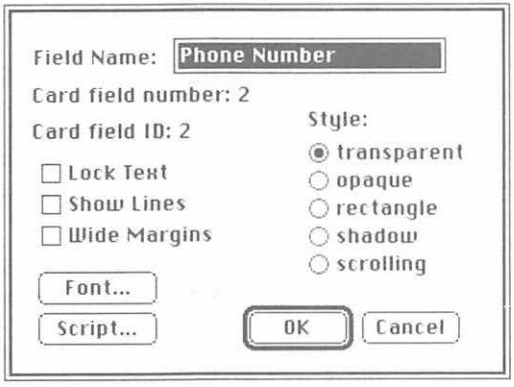


Figure 6-36
New Field dialog box

For details about the dialog box in Figure 6-36, see "Field Info" later in this chapter.

For information about fields and their uses, see "Fields" in Chapter 4.

Selection tool

Selection tool

Use the Selection tool to select a rectangular area of a picture. Drag diagonally to select.

To select the whole picture, double-click the Selection tool on the torn-off Tools palette. (You can also choose Select All from the Paint menu.)

To shrink the selection area to the outer perimeters of the object you're selecting, press the Command key while you drag; when you release the mouse button, the rectangle closes in and eliminates extra white space.

Press the Command key as you drag...

...to eliminate extra white space in the selection.

Figure 6-37
Eliminating extra white space in a selection

For an even tighter selection, press Option as you drag (or Command-S after you drag) to convert the rectangle to a lasso and to close in on the selection's dark dots.

- *Select, but can't drag:* If you've selected a picture but you can't drag it, you've tried to select a background picture without being in the background. Choose Background from the Edit menu and try again.

To move a selection, position the pointer inside the selection until the pointer changes to an arrow; then drag.

To move a selection straight up or down or directly left or right, press Shift while you drag.

To make a copy of a selection, press Option while you drag.

To make multiple copies, press Command-Option while you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

To stretch or shrink a selection, press Command while you drag from a corner.

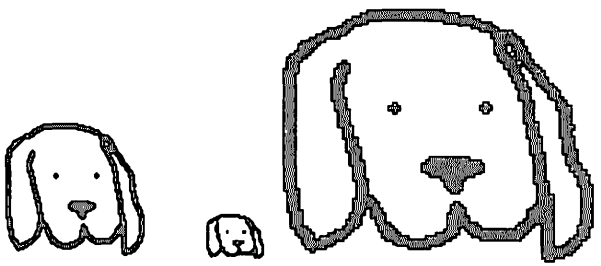


Figure 6-38
Shrunk and stretched selection

To stretch or shrink straight up and down or straight left and right, drag from any edge.

Lasso

Lasso

Use the Lasso to select a specific part of a picture when the area's too small for the Select tool or when you need to scoot around nonrectangular images.

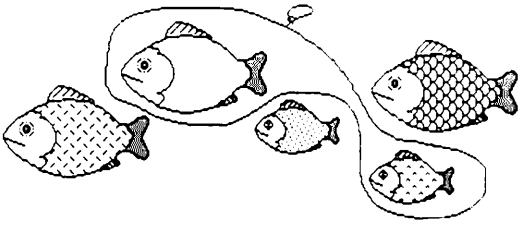


Figure 6-39
Only the lassoed fish are selected

To use the Lasso, drag around the area you want. (The line trailing out of the lasso's tip shows you what you're lassoing.) When you release the mouse button, the lasso hugs the part of the picture it surrounds and selects it. (The lasso shrinks until it finds black dots.) The edges of the lassoed area will shimmer.

To lasso an area without shrinking around black dots, press Option as you drag.

To lasso an area that has no breaks in it (one surrounded by an unbroken line, or one composed entirely of connected black dots), move the lasso's tip into it, press the Command key, and click the mouse. This technique is especially handy for selecting small areas.

To lasso each element in the picture (ignoring any unenclosed white space), double-click the Lasso in the torn-off Tools palette.

To move a selection, position the lasso's tip within the selection until the lasso changes to an arrow; then drag.

becomes to drag.

To move a selection straight up or down or directly left or right, press Shift while you drag.

To make a copy of a selection, press Option while you drag.

To make multiple copies, press Command-Option while you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

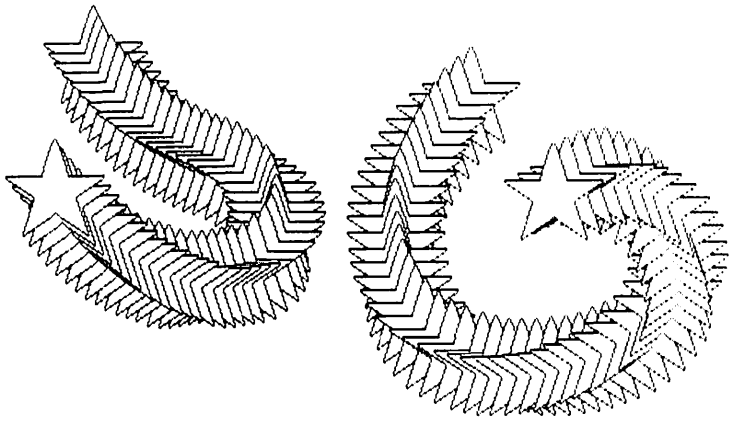


Figure 6-40
Multiple copies

To stretch or shrink a selection, press Command while you drag from an edge.

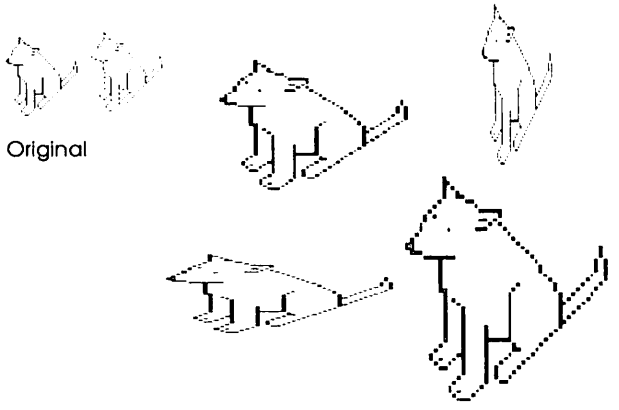


Figure 6-41
Stretched and enlarged

Pencil

Pencil

Use the Pencil to draw thin (one dot wide) free-form lines. Most people find it the most useful tool for doing detailed work in FatBits.

Pencil draws in the opposite color of the first place you press the Mouse button. (See Figure 6-42.)

Starting on black draws in white.

Starting on white draws in black.

Figure 6-42
Drawing the opposite color

To draw straight horizontal or vertical lines, press the Shift key while you drag.

To work with FatBits, double-click on the Pencil on the torn-off Tools palette (or press Command as you click with the Pencil selected). Click to make a single dot; click on an existing dot to erase it.

For information on FatBits, see "FatBits" in the Options menu section of this chapter.

Brush

Brush

Use the Brush to paint with the current pattern. Bring up a dialog box of brush shapes and sizes by choosing Brush Shape from the Options menu (or just double-click Brush); then click the one you want. Different shapes create different effects.

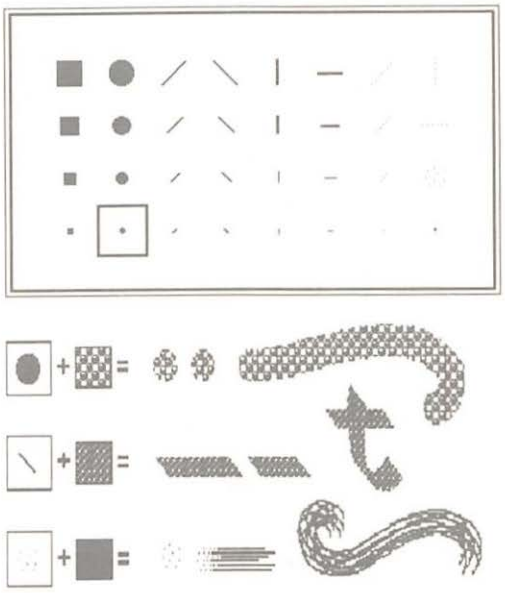


Figure 6-43
Different brush shapes create different effects when you paint

To paint straight vertical or horizontal lines, press Shift while you drag.

To erase instead of paint with a brush shape, press Command while you drag. Change the brush shape to change the shape of the "brush-eraser."

Eraser

Eraser

The Eraser wipes out the part of a picture you drag over.

To erase the whole picture, double-click the Eraser. HyperCard wipes out the picture, and then selects the tool you were using just before you double-clicked the Eraser. (Choose Undo from the Edit menu, or Revert from the Paint menu, if you double-click by accident.)

- *Magic appearances:* If you see a picture appearing under the eraser as you drag the eraser over a card picture, you're exposing a covered background picture. To erase with white paint (which prevents the background picture from appearing), press the Command key as you drag.

Line tool

Line tool

Use the Line tool to draw straight lines. Drag to draw lines in black; press Option while you drag to draw lines in the selected pattern. (See "Pattern Menu" later in this chapter.)

To change line thickness, choose Line Size from the Options menu (or double-click the Lines tool on the torn-off Tools palette) and click one of the choices. Or press 1 through 8 (5 is the same as 4, 7 is the same as 6) with Power Keys checked on the Options menu for lines that many dots wide. To keep the same line thickness, click the highlighted choice.

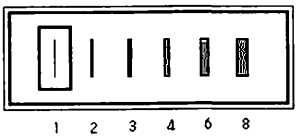


Figure 6-44
Line and border width

To change the angle of a line, with the mouse button still pressed move the mouse in another direction as you're creating the line.

To constrain angle changes to 15° increments, press Shift while you drag.

To draw a line centered on a given point, choose Draw Centered from the Options menu before you drag.

To draw a line with a multiple image of itself, choose Draw Multiple from the Options menu before you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

For information about power keys, see "Power Keys" in the Options Menu section of this chapter.

Spray tool

Spray tool

Use the Spray tool to spritz paint onto the screen in the selected pattern. The more you spray back and forth over the same area, the more the pattern becomes apparent.

To spray straight vertical or horizontal lines, press Shift while you drag.

To erase with the Spray tool, press Command while you drag.

Rectangle tool

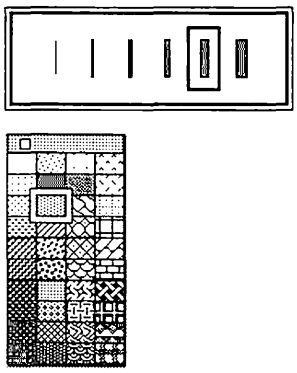
Rectangle tool

The Rectangle tool draws rectangles. To draw black-bordered rectangles, position the crossbar pointer where you want the rectangle to start; then draw diagonally.

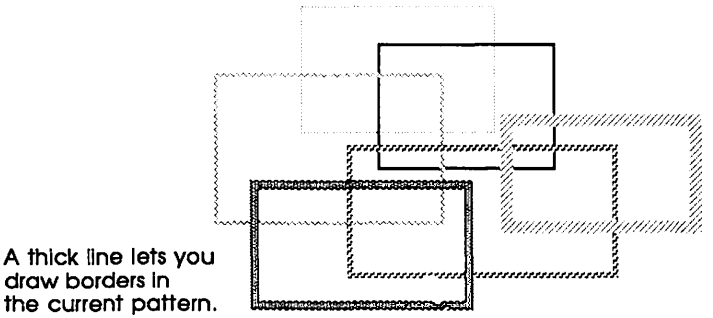
To change the thickness for a rectangle's border before you draw it, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices.

To draw rectangles filled with the selected pattern, choose Draw Filled from the Options menu.

To draw with borders in the selected pattern, press Option as you start to drag.



Line widths and pattern menu



A thick line lets you draw borders in the current pattern.

Figure 6-45
Rectangles with patterned borders

To draw centered on a given point, choose Draw Centered from the Options menu before you drag.

To draw borderless rectangles, choose Draw Filled from the Options menu and hold down the Option key as you drag.

To draw multiple rectangles, choose Draw Multiple from the Options menu before you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

To draw squares, hold down the Shift key while you drag.

Rounded Rectangle tool

Rounded Rectangle tool

The Rounded Rectangle tool draws rectangles with rounded corners. To draw black-bordered rounded rectangles, position the pointer where you want the rectangle to start; then draw diagonally.

To draw borders using the current pattern, hold down the Option key while you drag.

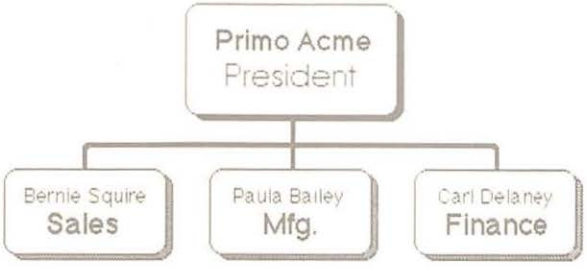


Figure 6-46
Creating and combining rounded rectangles

To change border thickness, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices; or press 1 through 8 with Power Keys checked on the Options menu for increasingly thicker lines.

To draw rounded rectangles filled with the selected pattern, choose Draw Filled in the Options menu before you drag. (Double-click this tool to toggle Draw Filled on and off.)

To draw centered on a given point, choose Draw Centered on the Options menu before you drag.

To draw with a multiple image, choose Draw Multiple on the Options menu before you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

To draw squares with rounded corners, press Shift while you drag.

Bucket

Bucket

Use the Bucket to fill solid black and enclosed white areas (including the hollow parts of outlined and shadowed letters) with the selected pattern.

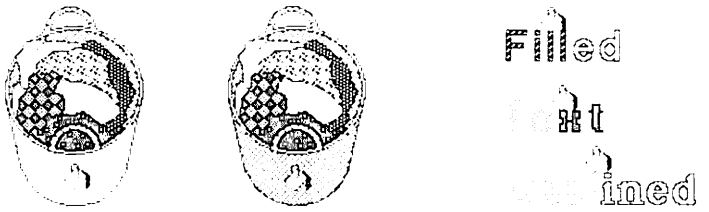
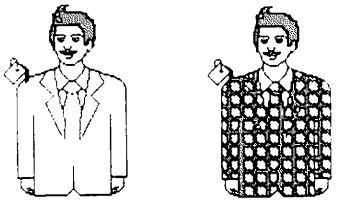


Figure 6-47
Using the Bucket

If there are any gaps in the outline surrounding an area, paint will spill out and fill the surrounding area as well. (You can use FatBits to check for gaps.)



Before After

Figure 6-48
Paint spilled in enclosed and unenclosed areas

You can't use the Bucket to fill a dark area (as opposed to a black area) with a lighter color. Instead, select the area and use Fill from the Paint menu.

- *Cleaning up accidental spills:* If you accidentally fill your screen with paint, immediately choose Undo from the Edit menu; then check carefully for gaps in your drawing before using the Bucket again.
- *Bucket short cut:* Double-click the Bucket to make the Patterns palette appear and disappear.

Oval tool

Oval tool

The Oval tool draws oval shapes. To draw black-bordered ovals, position the pointer where you want the oval to start; then drag diagonally.

To draw borders using the current pattern, hold down the Option key while you drag.

To draw circles, press Shift while you drag.

To draw centered on a given point, choose Draw Centered on the Options menu before you drag.

To draw filled with the current pattern, choose Draw Filled on the Options menu before you drag.

To draw with a multiple image, choose Draw Multiple on the Options menu before you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

To change border thickness, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices; or press 1 through 8 (5 is the same as 4, 7 is the same as 6) with Power Keys checked on the Options menu for increasingly thicker lines.

Curve tool

Curve tool

Use this tool to draw free-form shapes. Drag to draw whatever shape you want.

If you draw with Draw Filled checked from the Options menu, HyperCard draws a straight line connecting the starting and ending points of the shape when you release the mouse button; then it fills the shape with the selected pattern. (Double-clicking the Curve tool toggles Draw Filled on and off.)

Curve tool, Draw Filled unchecked

Curve tool, Draw Filled checked

Figure 6-49
Drawing filled and unfilled shapes

To change border thickness, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices; or press 1 through 8 (5 is the same as 4, 7 is the same as 6) with Power Keys checked from the Options menu for increasingly thicker lines.

To draw borders using the current pattern, hold down the Option key while you drag.

Paint Text tool

Paint Text tool

Use Paint Text to type text that's part of the picture. Paint text is especially useful as part of a background picture: use it for labels and titles that you want to show on many cards.

Set text attributes by choosing Text Style from the Edit menu or by double-clicking the Paint Text tool. The settings you make stay in effect until you change them, or until you restart HyperCard.

Press Return to move down to a new line.

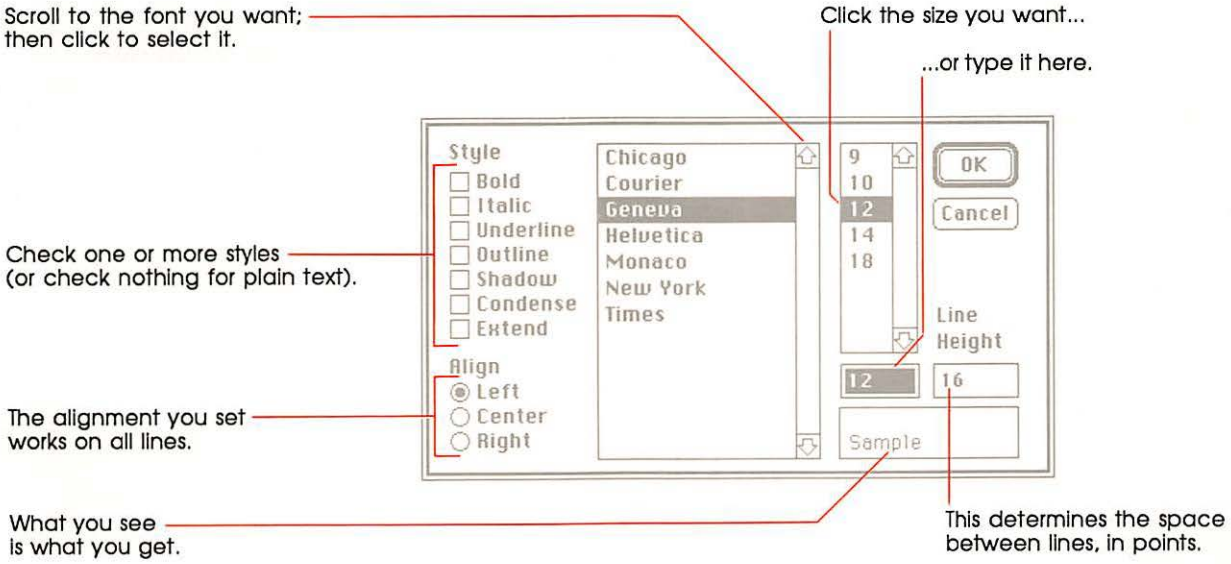


Figure 6-50
Text Style dialog box

Text you type using this tool is different from text you enter into fields. You don't create a field in which Paint Text appears—you just position the cursor and click where you want the text to start, and then type. As soon as you confirm what you've typed (by clicking, choosing another tool, choosing Keep from the Paint menu, or moving to another card), the text becomes part of the picture—its attributes become fixed. To change an attribute or to edit text, you have to erase the old text and start again.

❖ *Quick text pickup tip:* To select text you've just finished typing, press Command-S.

Important You can't use the Find command to search for Paint Text. To HyperCard, Paint Text is just another picture. If you think that you'll want to search later for what you're typing now, create a field and enter text using the Browse tool.

Each time you restart HyperCard, you reset the text attributes to 12-point plain Geneva with a line height of 16 dots, aligned left. This doesn't affect already-existing text.

Regular Polygon tool

Regular Polygon tool

The Regular Polygon tool creates polygons with regular sides. Unlike the other shape-making tools, Regular Polygon always starts drawing the shape from the center outwards (whether Draw Centered is checked or not on the Options menu).

The shape gets drawn from the center outward.

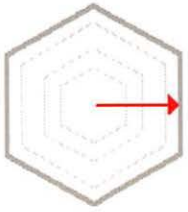


Figure 6-51
The Regular Polygon tool always draws as though you have Draw Centered turned on.

To select the shape of the polygon, choose Polygon Sides from the Options menu (or double-click the tool). When the dialog box appears, click the shape you want. To keep the same shape, click the highlighted choice.

Click the shape you want to use.

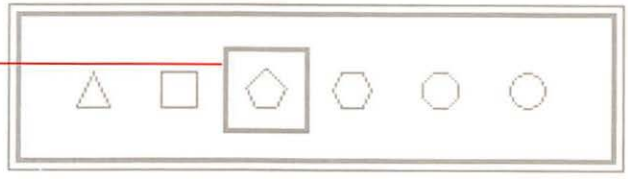


Figure 6-52
Double-click the tool to select a shape

To create a shape, drag the mouse diagonally.

To rotate the shape, turn the mouse with the mouse button still pressed as you're creating the shape.

To constrain movement to 15° increments, press Shift as you rotate.

To change border thickness, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices; or press 1 through 8 (5 is the same as 4, 7 is the same as 6) with Power Keys checked on the Options menu for increasingly thicker lines.

To draw borders using the current pattern, hold down the Option key while you drag.

To draw filled with the current pattern, choose Draw Filled from the Options menu before you drag.

To draw with a multiple image, choose Draw Multiple from the Options menu before you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

Polygon tool

Polygon tool

Use this tool to create polygons with irregular sides. This tool works differently from the others in that you don't hold the mouse button down to draw, and you double-click when you've finished the shape.

To draw, position the mouse where you want to begin; then click and release. Move the mouse until you've finished the first side, then click; roll out the second side, then click again; continue until you've finished all the sides, or double-click to end. (Clicking on the beginning point also ends the shape.)

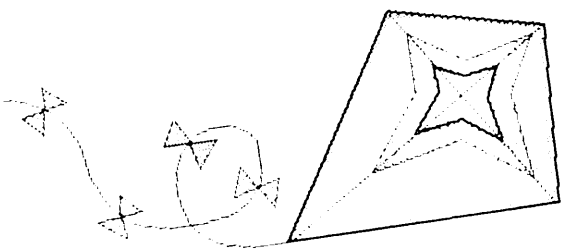


Figure 6-53
Using the Polygon tool

❖ *Watch your double clicks*: After you've started drawing, clicking once on the starting point of the shape ends it. (Usually with this tool, you double-click to end a shape.) But if you double-click on the starting point after you've begun drawing, you'll end the first shape and start a second one.

If the Draw Filled command in the Options menu is checked, HyperCard draws a straight line between the polygon's starting and ending points when you double-click to finish your polygon, creating an enclosed shape. The shape is then filled with the current pattern.

Figure 6-54
Creating an enclosed polygon

To draw borders using the current pattern, hold down the Option key while you drag.

To change border thickness, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices; or press 1 through 8 (5 is the same as 4, 7 is the same as 6) with Power Keys checked on the Options menu for increasingly thicker borders.

To draw shapes constrained to 15 degree angles, start the polygon with the Shift key pressed.

Objects menu

Use the Objects menu to create, examine, and change the actions of and information about HyperCard **objects**—buttons, fields, cards, backgrounds, and stacks.

To use the Objects menu, you must have the Browse, Button, or Field tool selected.

Figure 6-55
Objects menu

Button Info

Button Info brings up information about the selected button.

- To use the Button Info command:

1. **Select the Button tool from the Tools menu.**
2. **Select the button you want to work with.**

   A button you've just created is automatically selected.
3. **Choose the Button Info command from the Objects menu (or double-click the button).**

   The dialog box in Figure 6-56 appears.

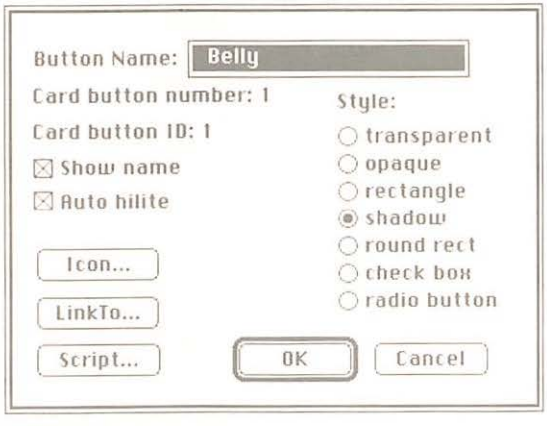


Figure 6-56
Button Info dialog box

Button name

Type the name for this button into the Button Name box. If you leave the box blank, your button will be nameless. If you just created this button using the New Button command, the button is already named "New Button." Button name works with Show name, described next.

Show name

Check the "Show name" box to have the button's name appear on the button. (Figure 6-57 shows how a button name appears with different styles checked.)

Several buttons can have the same name; use the button ID, described below, to distinguish between them.

Button number and layers

The button number line tells you whether the selected button is on the card or on the background, as well as what layer it's on. A button that you've just created has the highest number, and is on the frontmost layer on that card. The first button you create has the number 1, the second button the number 2, and so on.

When you change a button's layer, you change its number and the numbers of all buttons whose layers are also changed. (See "Bring Closer" and "Send Farther" later in this section.) When you delete a button, the numbers of any buttons closer to the front are all reduced by one.

Background buttons and card buttons are numbered separately. So there can be both a background button and a card button with the same number.

The highest number a background or card button can have is the total number of buttons on that background or card; the lowest number a background or card button can have is 1.

Button ID

Every button has a button ID unique in its stack. Unlike either the button name or button number, the ID number is permanent and unchangeable. When you delete a button, its ID number is permanently retired from the stack. Advanced HyperCard creators can use the ID number to create special button actions. See the *HyperCard Script Language Guide* for detailed information.

Style

Click one of these choices to set the style for the selected button.

- "Transparent" makes the button transparent. Use this to make an invisible button (perhaps one that goes over a picture), or one that blends in with what's behind it.
- "Opaque" colors the button white. It's like a white rectangle without a border.
- "Rectangle" makes a white rectangle with a thin black border.
- "Shadow" makes a white rectangle with a drop shadow along the right and bottom sides.
- "Round rect" makes a standard Macintosh button, like the kind you see in any dialog box.
- "Check box" makes a square button with an opaque interior.
- "Radio button" makes a small round button with an opaque interior.

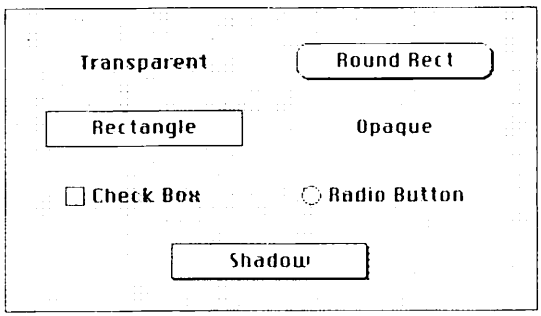


Figure 6-57
Button styles

Auto hilite

"Auto hilite" momentarily highlights any style button (except check box and radio button) when you click it. A button in either check box or radio button style toggles on and off when "Auto hilite" is set. With "Auto hilite" unchecked, you receive no visual feedback when you click a button. Figure 6-58 shows how each of the different button styles are highlighted.

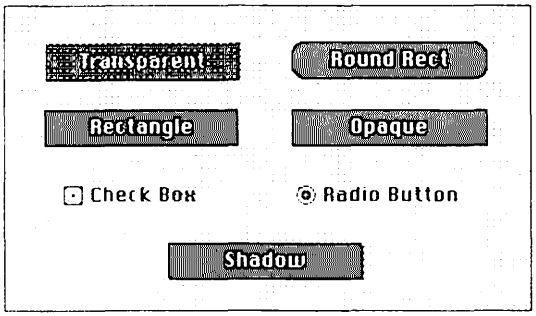


Figure 6-58
Highlighting different styles

Icon...

Icon lets you use an icon as a button. Pressing this button brings up the dialog box in Figure 6-59.

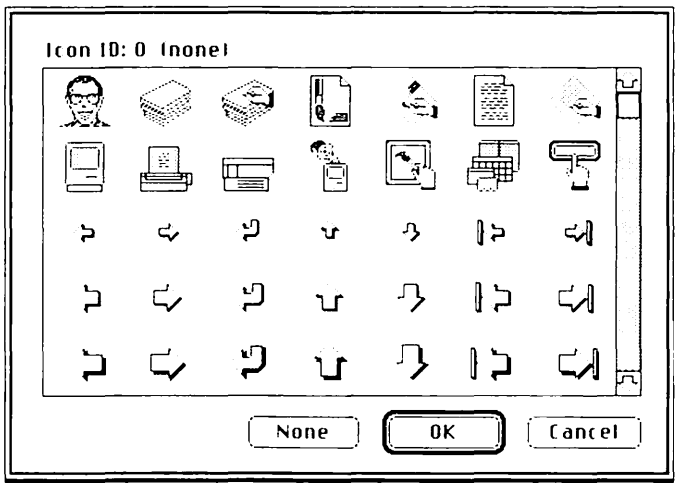


Figure 6-59
Icon dialog box

■ To use an icon as a button:

1. **Choose the Button tool.**
2. **Create a new button or select one that already exists.**

   Creating a new button automatically selects it.
3. **Choose Button Info from the Objects menu.**

   Or double-click the button you want to work with.
4. **Click the Icon button in the dialog box.**

   The dialog box in Figure 6-59 appears. If the button you've selected is already an icon, its picture is highlighted in the dialog box.
5. **Click the picture of the icon you want to use as your button.**

   (Scroll through the choices, if necessary.) The icon whose picture you click replaces the selected button on your card or background.

The advantage of using an icon is that picture and button are combined in one unit; this makes cutting, pasting, and moving buttons easier.

When you use an icon, don't use either the check box or the radio button styles; otherwise, you won't see the icon.

LinkTo...

Press this to create a link for the button you're creating. This option is especially important because it's the easiest way to establish connections between cards and stacks. Once you've made a link, pressing the button immediately moves you to the linked card or stack.

LinkTo brings up a dialog box:

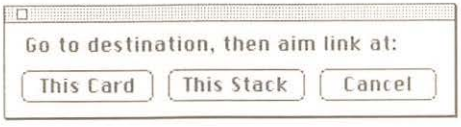


Figure 6-60
Dialog box for making links

- To set a link between the current card and any other card in any stack:

1. **Choose the Button tool.**
2. **Create a new button or select one that already exists.**

   Creating a new button automatically selects it.
3. **Click Link To.**

   Using a button that already exists cancels any previous link you might have set.
4. **Go to the card you want to link to.**

   The dialog box stays on the screen while you're looking for the card. The card can be in the current stack or in any other stack.
5. **Click the choice that reflects which card you want to go to when you press the button.**

   To link to the card you're on, click "This Card."

   To link to the first card in the current stack (no matter what card you're on), click "This Stack."

After you click, HyperCard brings you back to the card with the selected button on it.

If the dialog box gets in your way, grab it by its top bar and drag it where you want it to be.

Warning Changing the name of a stack will break links you've made between any card in the renamed stack and any other card in any stack (including links within the renamed stack itself). When you change the name of a stack, be sure to redo all the links.

Script

This feature, available only if Scripting is checked on the User Preferences card in the Home stack, lets you write scripts that control what happens when the selected button is pressed. See the *HyperCard Script Language Guide* for details on this advanced feature.

Field Info

Field Info brings up information about the selected field. You can see and change the field's name, learn whether this is a background or a card field, find out the field's layer number (which tells you the layer of the field relative to other fields on this card or background), make the text in the field editable or locked, and determine the visual characteristics of both the text in the field and of the field itself.

■ To use Field Info:

1. **Select the Field tool from the Tools menu.**
2. **Select the field you want to work with by clicking in it.**
3. **Choose the Field Info command from the Objects menu.**

   Or just double-click the field. The dialog box in Figure 6-61 appears.

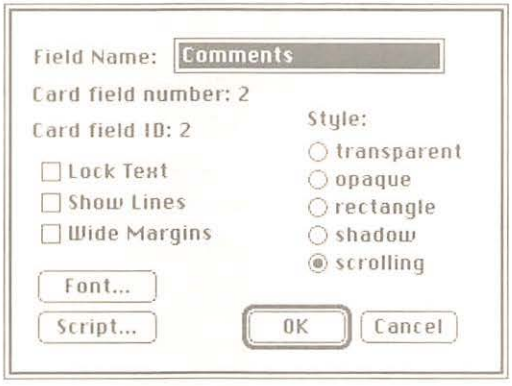


Figure 6-61
The Field Info dialog box

4. **Design the field.**

- ☐ Type or change the field's name.
- ☐ Click Lock Text to prevent the text in the field from being changed. (Click it again to make the text editable.)
- ☐ Click Show Lines so that you can see where the lines are in a field.
- ☐ Click Wide Margins to include extra space in the left and right margins (useful for making text in fields easier to read).
- ☐ Click the Font button to set or change the look of text in the field. (See "Text Style" elsewhere in this chapter.)
- ☐ Click one of the style buttons to set the look of the field itself.

5. **When you're finished, click OK.**

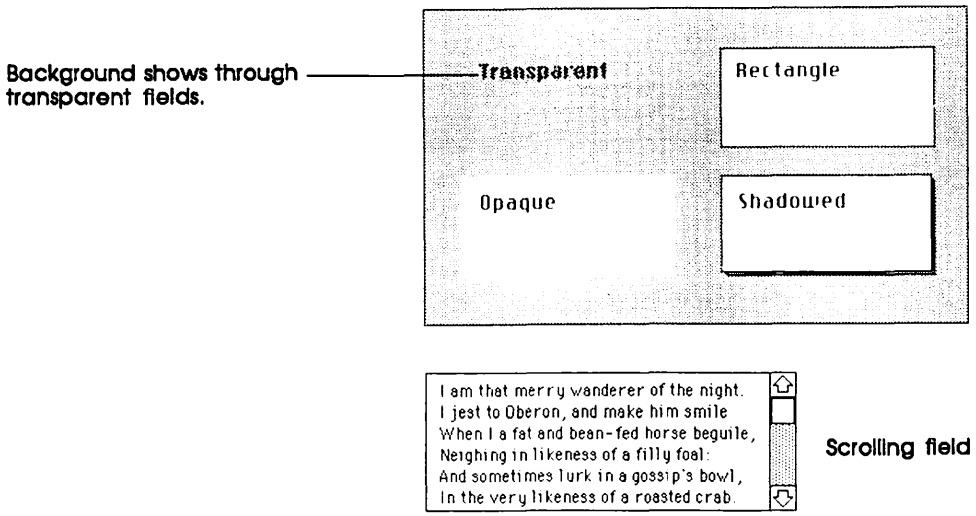


Figure 6-62
Field styles

For more details on the features described here, see Chapter 4, "Text in HyperCard."

Field number

The Field number tells you what layer the field is on relative to other fields. A field that you've just created has the highest number, and is on the frontmost layer. The first field you create has the number 1, the second field the number 2, and so on.

When you change a field's layer, you change its number and the numbers of all fields whose layers are also changed. (See "Bring Closer" and "Send Farther" later in this section.) When you delete a field, the numbers of any fields closer to the front are all reduced by one.

Background fields and card fields are numbered separately. So there can be both a background field and a card field with the same number.

The highest number a background or card field can have is the total number of fields on that background or card; the lowest number a background or card field can have is 1. (For more details, see "Tab Order and Layers" in Chapter 4, "Text in HyperCard.")

Field ID

Every field has a field ID unique in its stack. Unlike a field's name or number, the ID number is permanent and unchangeable. When you delete a field, its ID number is permanently retired from the stack.

❖ *Special field actions:* Advanced HyperCard creators can use the ID number to create special field actions. See the *HyperCard Script Language Guide* for details on this advanced feature.

Script

This button (available only if Scripting is checked on the User Preferences card in the Home stack) lets you write scripts associated with the field. For details on scripts, see the *HyperCard Script Language Guide*.

Card Info

The Card Info command brings up information about the current card.

■ To use the Card Info command:

1. **Select any General tool from the Tools menu.**
2. **Choose the Card Info command from the Objects menu.**

   The dialog box in Figure 6-63 appears.

Figure 6-63
Card Info dialog box

3. **Type or change the card's name, check a box, or click one of the buttons.**

   Click Script to look at, create, or change the card's script.

4. **When you're finished, click OK.**

Can't delete card

When "Can't delete card" is checked, you can't remove the card from the stack. (You can, however, delete the stack, taking the protected card with it.) To allow the card to be removed, uncheck the box by clicking in it.

For information on using scripts, including how to use card ID numbers, see the *HyperCard Script Language Guide.*

Changing a card's position in a stack

Card Number tells you the number of cards in the stack, and the current card's position in the stack.

- To change a card's position in a stack:

1. **Move to the card whose position you want to change.**
2. **Choose Cut Card from the Edit menu.**
3. **Move to the card you want to come immediately before the one you've just cut.**
4. **Choose Paste Card from the Edit menu.**

   Or press Command-V.

The pasted card appears on the screen.

To move a card to the first position in a stack requires several more steps. You must first make the wanted card the second one in a stack; then you have to move the first card in the stack out of the way.

■ To change a card's position so that it's first in a stack:

1. **Move to the card whose position you want to change.**
2. **Choose Cut Card from the Edit menu.**
3. **Choose First from the Go menu.**

   Or press Command-1. The first card in the stack appears.

4. **Choose Paste Card from the Edit menu.**

   Or press Command-V. The pasted card appears from the screen; it is now the second card in the stack.

5. **Choose First from the Go menu again.**

   Or press Command-1. The first card in the stack appears.

6. **Choose Cut Card from the Edit menu.**

   Or press Command-X. The card you had originally set out to reposition is now first in the stack.

7. **Choose Paste Card from the Edit menu.**

   Or press Command-V. The original first card is now second.

Bkgnd Info

Bkgnd Info brings up information about the current background. You can see and change the background's name, find out the number of cards that share the background, and learn how many fields and buttons this background has.

■ To use Bkgnd Info:

1. **Select any General tool from the Tools menu.**
2. **Choose Bkgnd Info from the Objects menu.**

   The dialog box in Figure 6-64 appears.

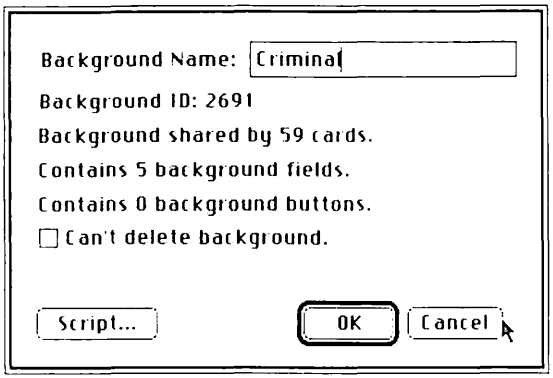


Figure 6-64
Bkgnd Info dialog box

3. **Type or change the background's name, check a box, or click one of the buttons.**
4. **When you're finished, click OK.**

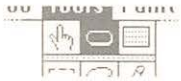
Can't delete background

When "Can't delete background" is checked, you can't delete the last card with this background in a stack. (You can, however, delete the stack—including the protected background). To deprotect the background, uncheck the box by clicking in it.

For information on backgrounds, see "Background" earlier in this chapter.

For information on using scripts, including how to use background ID numbers, see the *HyperCard Script Language Guide*.

Stack Info



General tools

The General tools are Browse, Button, or Field.

The Stack Info command brings up information about the selected stack. You can see and change the stack's name, learn the number of cards in the stack and the amount of space the stack uses, and read the name of the folder and disk the stack resides on.

- To use Stack Info:

1. **Select any general tool from the Tools menu.**
2. **Choose the Stack Info command from the Objects menu.**

   The dialog box in Figure 6-65 appears.

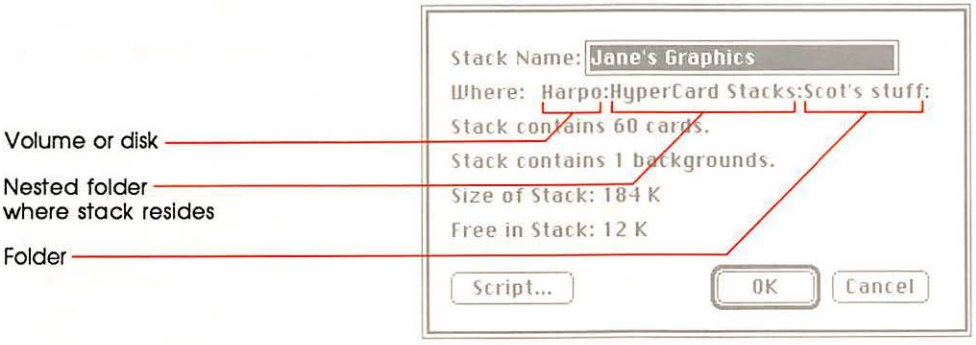


Figure 6-65
Stack Info dialog box

3. **Type or change the stack's name or click one of the buttons.**
4. **When you're finished, click OK.**

Stack Name

The name is the same as it appears in the Finder and in the Directory dialog box. You change the stack's name by typing in the Stack Name box. Changing the name here also changes the name in the Finder.

Warning Changing the name of a stack will break links you've made between any cards in the renamed stack and any other card in any stack (including links within the renamed stack itself). When you change the name of a stack, be sure to redo all the links.

Where

The Where information tells you the full search path to where the stack resides, starting with the disk and ending with the folder that actually holds the stack. In Figure 6-65, the stack resides in the folder called Scot's stuff on the disk Harpo. A longer trail of names would indicate that the stack is further nested within folders.

For more information on search paths, see "Search Paths" in Chapter 3.

Free in Stack

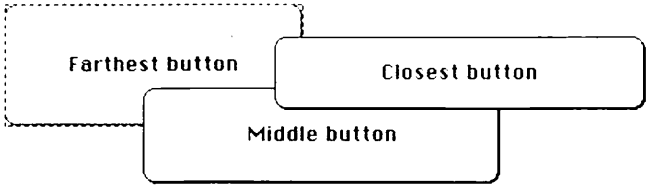
Free in Stack tells you the amount of extra memory space in the stack. (Extra space gets introduced into a stack each time you delete a card, background, field, or button.) Sometimes the Free number can be substantial, and the more extra space in a stack, the slower will actions be carried out, and the larger will be the stack.

You can get rid of the extra space by using the Compact Stack command from the File menu. When you choose Stack Info again, Free in Stack will be zero K, and Size of Stack will likely be smaller.

Bring Closer

The Bring Closer command (or Command-plus) brings the selected button or field one layer closer and increases its number to reflect its current layer, relative to other buttons or fields. You'd want to bring an object closer when a second object is covering it, not allowing you to use the selected object.

Three buttons, in the order they were created



Using Bring Closer, the farthest button is now in the middle.

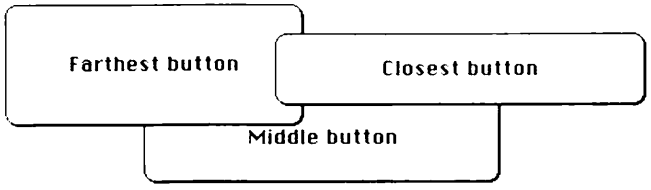


Figure 6-66
Moving a button closer

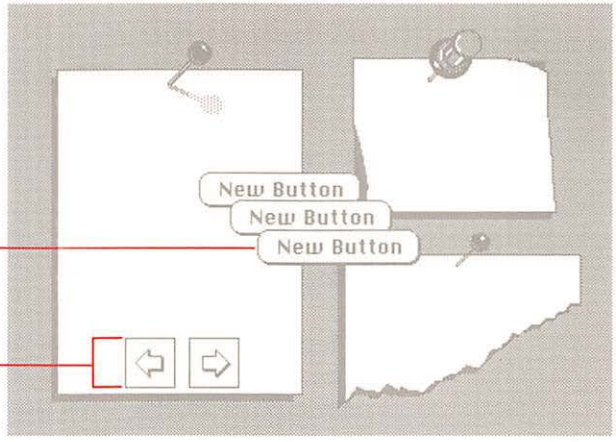
The highest number an object can have in any case is the total number of objects of that type on a given card or background; the lowest number an object can have is 1.

Send Farther

The Send Farther command (or Command-minus) puts the selected button or field one layer further back and decreases its number to reflect its current layer relative to other buttons or fields. You'd want to move an object farther back when it's covering a second object. (You can't use a covered object effectively).

New Button

This command automatically selects the button tool and creates a new button named "New Button" in the rounded rectangle style. The button appears in the center of the screen, selected so that you can move it or size it easily.



Choosing New Button several times produces several new buttons laid atop one another (separated here for clarity).

The button tool is automatically selected, so you see all buttons on the card.

Figure 6-67
Making new buttons

To change the name of the button or to change the way it looks, choose Button Info (described earlier in this section).

To create a new background button, first choose Background from the Edit menu.

New Field

This command automatically selects the field tool and creates a new transparent field. The field appears in the center of the screen, selected so that you can move it or size it easily.

To name the field or to change the way it looks, choose Field Info (described earlier in this section).

To create a new background field, first choose Background from the Edit menu.

To read more about fields, see Chapter 4.

New Background

New Background creates a new card with a new background in the current stack. The new background has no fields or buttons and is entirely blank.

For details about backgrounds, see "Background" and "Bkgnd Info" earlier in this chapter.

Paint menu

The Paint menu commands work in conjunction with the Paint tools to manipulate and change pictures. You can choose these commands from the menu or, if you have Power Keys checked in the Options menu, you can use keyboard equivalents.

The Paint menu appears only when you're using a Paint tool.

For information on the Paint tools, see "Tools menu" earlier in this chapter.

Figure 6-68
Paint menu

Throughout this section, you'll see references to power keys. Power keys let you choose menu commands from the keyboard. For information on power keys, see "Power Keys" under the Options menu section of this chapter.

Select

Select (or either power key S or Command-S) lassos the shape you most recently drew. This command is particularly useful if you've just drawn a shape very close to or actually touching another shape, and you need to move the new shape. (In fact, you can draw a new shape on top of an old one, choose Select, and then drag the new shape away.)

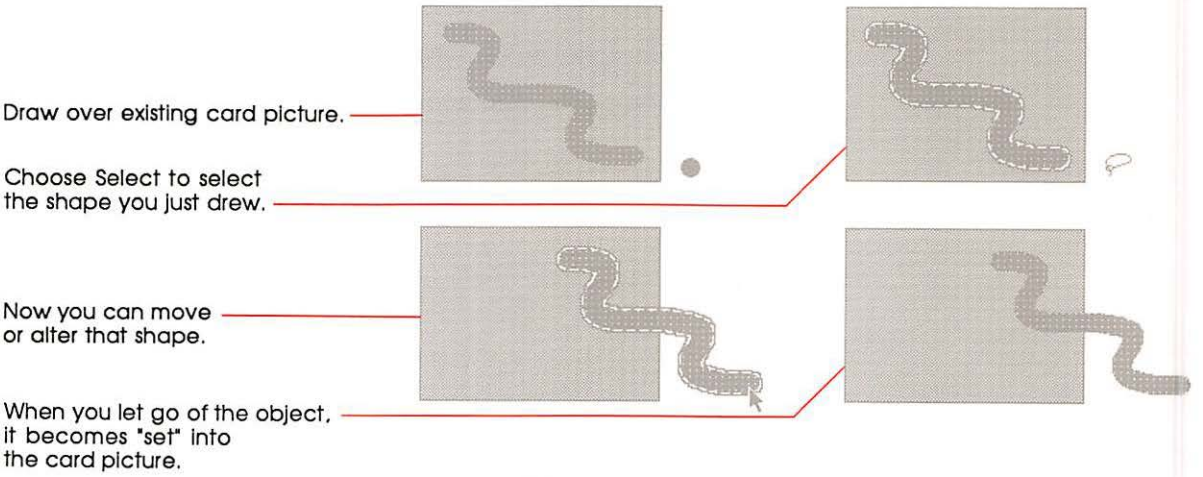


Figure 6-69
Using Select

If you've selected a shape with the Selection rectangle, choosing Select lassos the shape. If nothing is selected, Select lassos everything (the same effect as double-clicking the Lasso tool).

The object stays selected until you select another tool, click the mouse, or keep the shape. (see "Keep" later in this section.)

Select All

Select All (or either power key A or Command-A) selects the entire picture. This has the same effect as double-clicking the Selection tool.

To select the entire background picture, first choose Background from the Edit menu; then choose Select All.

Fill

Fill (or power key F) colors the selected part of a picture with the current pattern. This command is especially useful for quickly changing the pattern of a large area.

Figure 6-70
Using Fill

For related commands see "Bucket" under "Tools Menu" and "Draw Filled" under "Options Menu" elsewhere in this chapter.

Invert

Invert (or power key I) reverses the color of the dots in the selected part of a picture, such that white dots become black and black dots become white.

Figure 6-71
Inverting a picture

Warning When you invert a lassoed area that is not totally enclosed, HyperCard paints white the unenclosed part of the lassoed area; the whole image seems to disappear. To get the image back, choose Undo from the Edit menu.

Pickup

Pickup (or power key P) is like a cookie cutter for images.

- To use Pickup:

1. **Select an image.**
2. **Drag it over a second image.**
3. **Choose Pickup.**

   The first image picks up the pattern of the second.
4. **Drag the first image away.**

1. This is the shape whose pattern you want to change.

2. This is the pattern you want to use.

3. Select the shape and move it over the pattern.

4. Choose the Pickup command (or just press P if power keys are active).

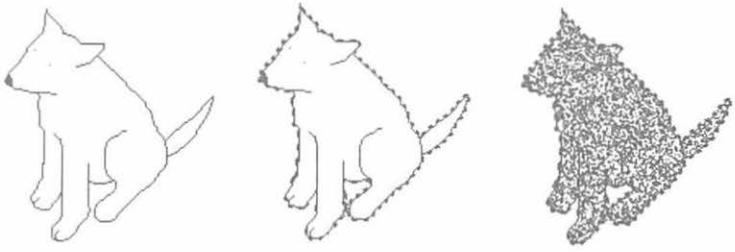
5. Drag the shape away.

Figure 6-72
How Pickup works

See Chapter 5 for more examples using this command.

Darken

Darken (or power key D) darkens the selected picture by randomly turning white dots black. Each time you choose Darken, a few more dots are changed.



Original Selected Darkened

Figure 6-73
Using Darken

Keeping power key D pressed repeats the action until you release the key or until the selection is totally black.

Lighten

Lighten (or power key L) lightens the selected picture by randomly turning black dots light. Each time you choose Lighten, a few more dots are changed.

Original Selected Lightened

Figure 6-74
Using Lighten

Keeping power key L pressed repeats the action until you release the key or until the selection is totally white.

Trace Edges

Trace Edges (or power key E) outlines black areas in a picture or in the selected part of a picture. Repeated tracing adds more outlines.

Original Edges Edges, twice Edges, three times

Figure 6-75
Untraced, single-traced, and multitraced areas

Rotate Left

Rotate Left (or power key [ ) turns the selected portion of a picture 90 degrees left.

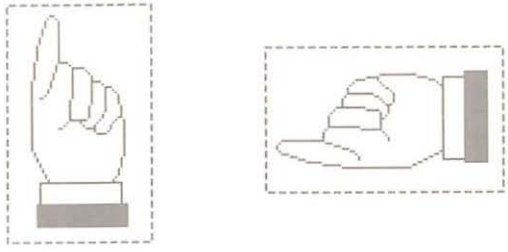


Figure 6-76
Rotating an image to the left

Warning If any part of the picture moves off the screen during a rotation, you'll lose that part permanently—Undo can't save it. Try Revert to get back the lost portion.

Rotate Right

Rotate Right (or power key]) turns the selected portion of a picture 90 degrees right.

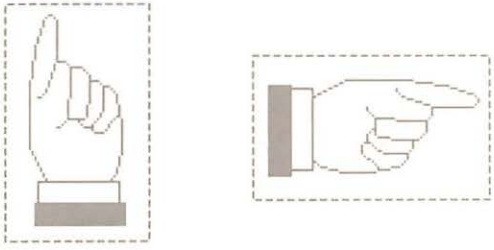


Figure 6-77
Rotating an image to the right

Warning If any part of the picture moves off the screen during a rotation, you'll lose that part permanently—Undo can't save it. Try Revert to get back the lost portion.

Flip Vertical

Flip Vertical (or power key V) flips the selected portion of a picture vertically.

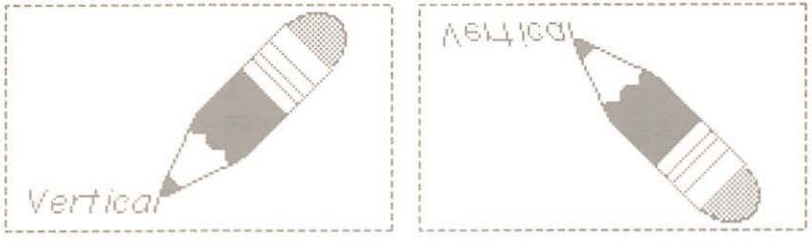


Figure 6-78
Flipping an image vertically

Flip Horizontal

Flip Horizontal (or power key H) flips the selected portion of a picture horizontally about its center line.

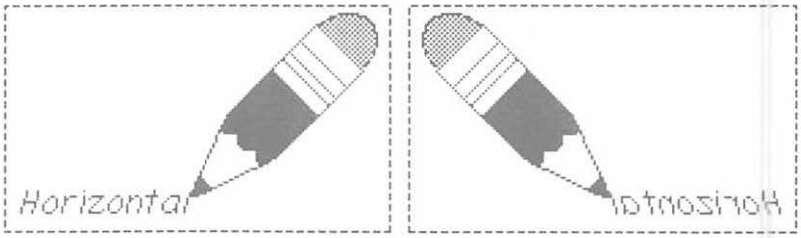
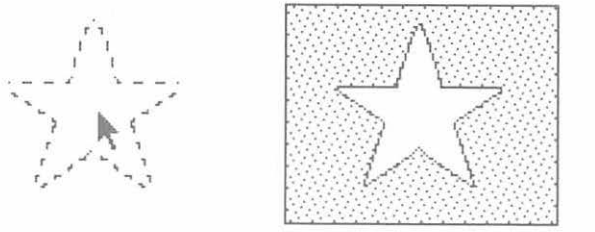


Figure 6-79
Flipping an image horizontally

Opaque

Opaque (or power key O) makes the selected portion of a card picture opaque. (You can't see the portion of a background covered by an opaque foreground.)



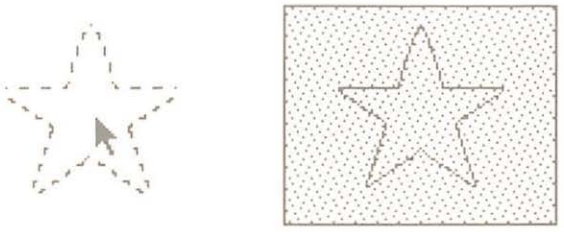
Selected image... ...dragged and made opaque.

Figure 6-80
Opaque command

To see what part of a picture is opaque, press Option-O; the opaque parts show as black.

Transparent

Transparent (or power key T) makes the selected part of a card picture transparent. (You can see the background if it's covered by a transparent foreground.) Cards are transparent unless you make them opaque.



Selected image... ...dragged and made transparent.

Figure 6-81
Transparent command

Keep

Keep (or Command-K) tells HyperCard that you want to keep the changes you've made to a picture. (Until you tell it differently, HyperCard assumes that you might want to throw away changes.) Use Revert to go back to the most recently kept version of the picture. (See "Revert" later in this section.)

Changing cards, switching to or from Background, or clicking a General tool has the same effect as choosing Keep.

Revert

Revert (or power key R) restores the most recently kept version of the picture (or the selected part of it), throwing away any changes since the last Keep command or since you started painting on this picture. (HyperCard accepts a picture when you choose Keep, switch to or from Background, change cards, or click a General tool.) It's like Undo on a larger scale.

Options menu

Commands on the Options menu modify the action of Paint tools.

Figure 6-82
Options menu

The Options menu appears only when you're using a Paint tool. For information on the Paint tools, see "Tools Menu" earlier in this chapter.

Many of these commands work when you press the appropriate power key. For information on power keys, see "Power Keys" later in this section.

Grid

Grid (or power key G) constrains where picture elements line up when you use many of the Paint tools. When Grid is on, you can move a selection, draw, or type only at specific intervals. These intervals are eight dots apart (just under 1/8th of an inch).

A check appears next to Grid in the Options menu when this feature is on.

FatBits

FatBits (or Option-F) lets you zoom in on a section of a picture to do close-in finish work and to edit your picture one dot at a time. Select an area and choose FatBits to blow up that area; then edit using any Paint tool. The tools work to scale.

A movable window in the lower-left corner shows you what effect your editing changes have when the picture's full-sized again. (To move the little window, drag it by its title bar.)

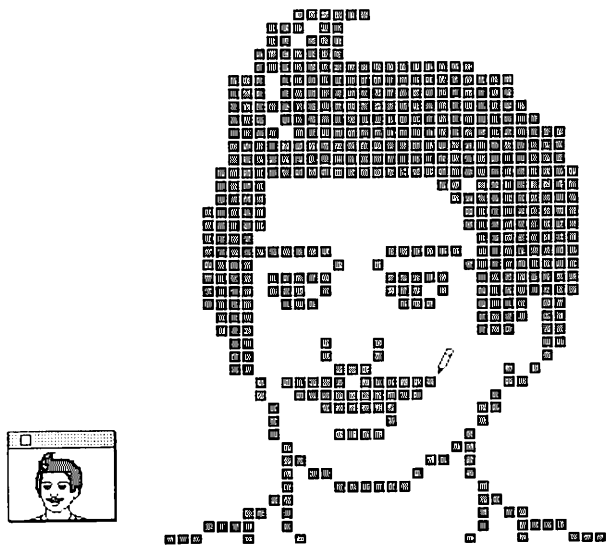


Figure 6-83
FatBits

A check appears next to FatBits in the Paint menu when FatBits is on.

Moving the picture around

Pressing and holding the Option key in FatBits changes the tool you're using to a hand. As you drag the hand, you move the picture around so you can get to a part that might be outside your viewing area. When you release the Option key, the pointer changes back to the tool you were using.

If you choose FatBits without first selecting an area, HyperCard zooms in on the part of the picture you last worked on. Hold down the Option key and use the grabbing hand to move to the part of the picture you want to work with.

To leave FatBits, choose the FatBits command again.

Entering and leaving FatBits quickly

You can use any of these short cuts to enter or leave FatBits:

- Press Option-F.
- Double-click the Pencil tool.
- Click in the small window.
- With the Pencil tool selected, press the Command key while you click the mouse.

Power Keys

Power Keys lets you use the keyboard to evoke commands you'd ordinarily choose from a menu. When you choose Power Keys, pressing a single key (with or without the shift key pressed) does the work of choosing a menu command with the mouse.

A power key modifies the way a particular tool acts. Table 6-3 shows a list of the commands that power keys invoke.

Table 6-3
Power keys

Command	Key	Menu
Darken	D	Paint
Draw Centered (on/off)	C	Options
Draw Multiple (on/off)	M	Options
Fill	F	Paint
Flip Horizontal	H	Paint
Flip Vertical	V	Paint
Grid (on/off)	G	Options
Invert	I	Paint
Lighten	L	Paint
Line size	1–4, 6, 8	Options
Opaque	O	Paint
Pickup	P	Paint
Revert	R	Paint
Rotate Left	[	Paint
Rotate Right	]	Paint
Select	S	Paint
Select All	A	Paint
Select black pattern	B	Patterns
Select white pattern	W	Patterns
Trace Edges	E	Paint
Transparent	T	Paint

If you need more details, see the description of the specific command elsewhere in this chapter.

A check appears next to power keys in the Options menu when this feature is on. To turn off power keys, choose Power Keys from the Options menu again. (The check will disappear.)

You can use several power keys in combination to create spectacular special effects. (Try C and M with the Oval tool, for example.)

When you're using the Paint Text tool, power keys are temporarily disabled.

Line Size

You use Line Size to set the thickness of lines and borders. Choosing this command brings up a dialog box:

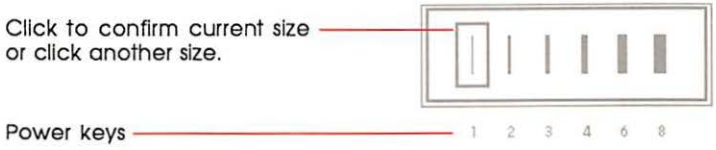


Figure 6-84
Line sizes

To select a thickness, click on it (or use a power key equivalent). You can also bring up the Line Size dialog box by double-clicking the Line tool.

Brush Shape

Use Brush Shape to select a shape for the Brush. Each shape has a different effect when you use it. To select a shape, move the pointer to the shape you want; then click.

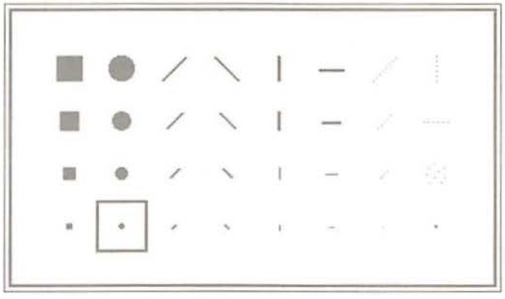


Figure 6-85
Brush Shapes dialog box

Double-clicking the Brush also brings up the Brush Shapes dialog box. For details on the Brush tool, see "Tools Menu" earlier in this chapter.

Edit Pattern

Edit Pattern lets you edit the pattern currently selected on the Pattern menu by clicking dots on or off. When you choose Edit Pattern, the pattern editor appears. See Figure 6-86.

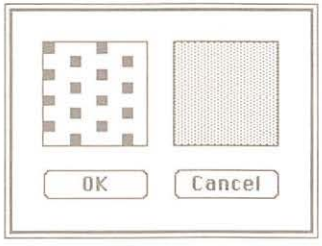


Figure 6-86
Pattern editor

To edit a pattern, move the pointer to the dot you want to change; then click. Clicking where there is no dot adds one; clicking on an existing dot takes the dot away.

Double-clicking a pattern on the Pattern palette also brings up the pattern editor.

Using a nonstandard pattern

You can replace a pattern on the Pattern palette with any pattern on the screen. (See Figure 6-87.)

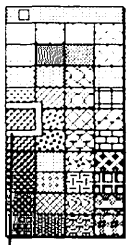
- To use a pattern already on the screen:

1. **Make sure the new pattern is on the screen.**
2. **Click the pattern on the Pattern palette to be replaced.**
3. **Choose Edit Pattern from the Options menu.**

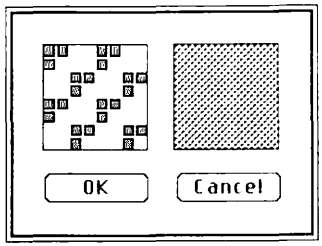
   (Or double-click the pattern to be replaced if you're using the Pattern palette.) The pattern editor appears showing the selected pattern.
4. **Click anywhere on the new pattern in the picture.**

   The old pattern in the pattern editor is replaced by the new one.
5. **Click OK.**

   The new pattern replaces the selected pattern in the Pattern menu.

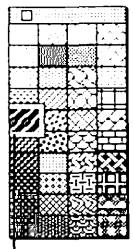


Select a pattern to be replaced.



Bring up the pattern editor.

Click anywhere on the new pattern in the picture to place the pattern in the editor.



The new pattern is saved with the stack when you click OK.

Figure 6-87
Switching patterns

The new pattern is saved with the stack.

Polygon Sides

You use Polygon Sides to select a shape for the Regular Polygon tool.

Click the shape you want to use.

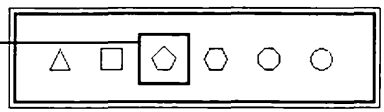


Figure 6-88
Selecting a shape

You can also bring up this dialog box by double-clicking the Regular Polygon tool.

For details on the Regular Polygon tool, see "Tools Menu" earlier in this chapter.

Draw Filled

Draw Filled fills shapes as you draw them. It uses the current pattern to fill the shapes.

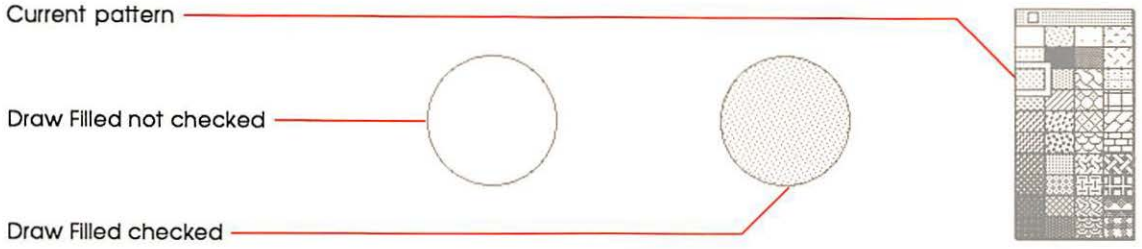
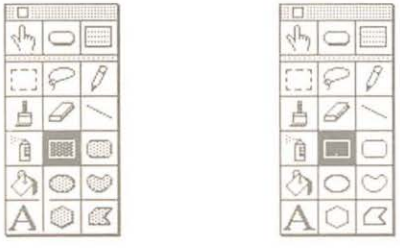


Figure 6-89
Using Draw Filled

The Tools menu looks different when Draw Filled is turned on. The tools that it affects (Rectangle, Rounded Rectangle, Oval, Curve, Polygon, and Regular Polygon) have slightly different representations.(See Figure 6-90.)



Draw Filled on Draw Filled off

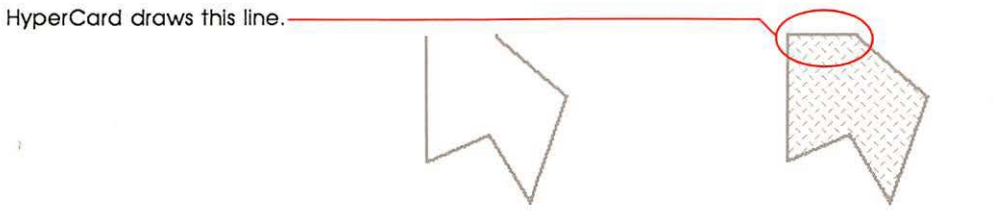
Figure 6-90
Tools menu with Draw Filled turned on and turned off

- *Draw Filled short cut:* Double-clicking any of the tools that Draw Filled affects (except Regular Polygon) turns Draw Filled on and off.

When Draw Filled is turned on, a check mark appears next to it in the menu. To turn off Draw Filled, choose the command again.

Draw Filled with the Polygon tool

If Draw Filled is turned on while you're using the Polygon tool, HyperCard draws a straight line between the polygon's starting and ending points when you double-click to finish your polygon. The resulting enclosed shape is filled with the current pattern.



Draw Filled not checked Draw Filled checked

Figure 6-91
Creating an enclosed, filled polygon

Draw Filled with the Curve tool

If Draw Filled is turned on while you're using the Curve tool, HyperCard draws a straight line connecting the starting and ending points of the shape when you release the mouse button; then it fills the shape with the selected pattern.

Curve tool with Draw Filled off Curve tool with Draw Filled on

Figure 6-92
Creating a filled, curved shape

Draw Centered

Draw Centered (or power key C) lets you draw out from a center point. (You usually draw lines, rectangles, and ovals starting from an edge or corner.)

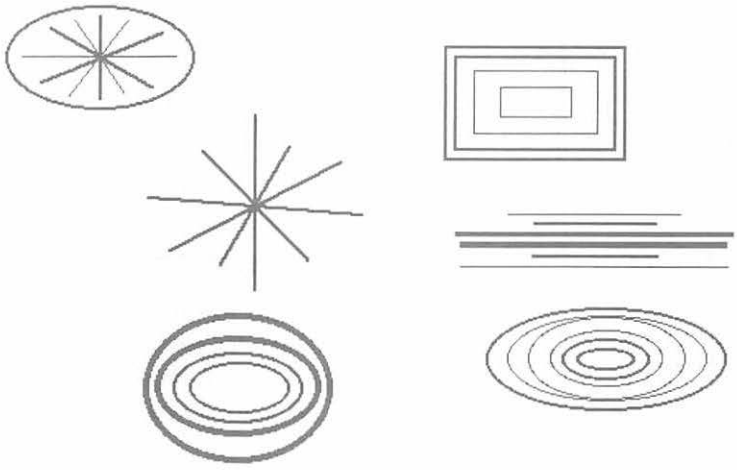


Figure 6-93
Drawings made with Draw Centered checked

Draw Centered affects the following tools: Line, Rectangle, Rounded Rectangle, Oval, Curve, Polygon, and Regular Polygon.

When Draw Centered is turned on, a check mark appears next to it in the menu. To turn off Draw Centered, choose the command again.

Draw Multiple

Draw Multiple (or power key M) draws multiple images as you drag with the mouse.

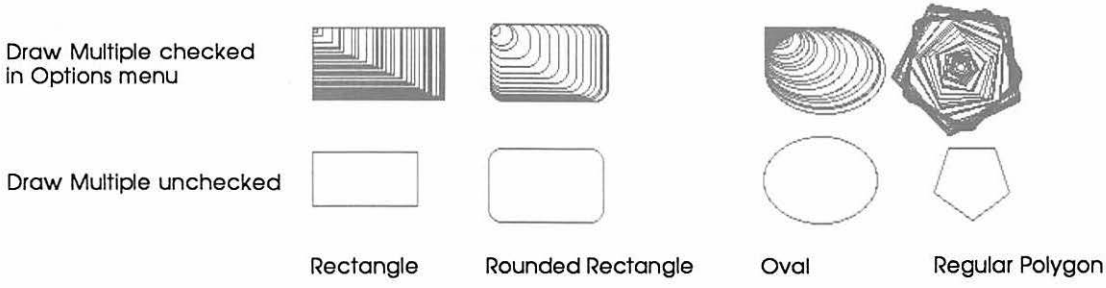


Figure 6-94
Drawing shapes with and without Draw Multiple checked

Draw Multiple affects the following tools: Line, Rectangle, Rounded Rectangle, Oval, and Regular Polygon.

When Draw Multiple is working, a check mark appears next to it in the menu. To turn off Draw Multiple, choose it again.

Patterns menu

The Patterns menu is a palette from which you pick the pattern you want to use for painting. Select the paint pattern you want to use to fill shapes and (if you specify) to draw borders. The menu can be "torn off" and the palette placed anywhere on the screen.

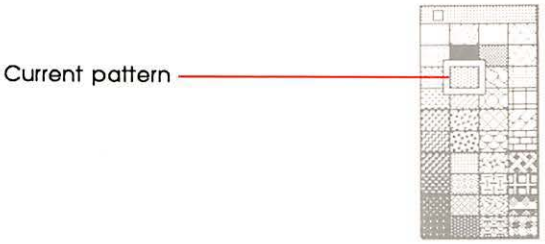


Figure 6-95
Torn-off Pattern palette

- To create a movable Pattern palette:
- **Drag down through the menu, either past the bottom or beyond either side.**

Put the palette wherever you want by dragging. To move the palette around, drag it by its top bar or by any edge. To put it away, click its close box. If it gets stuck in an awkward place, just tear off a new pattern palette; the old one disappears.

Editing patterns

To edit a pattern, select the pattern you want to edit and choose Edit Pattern from the Options menu (or double-click the pattern you want to edit); when the pattern editor appears, click a dot to make the dot go away or click where there is no dot to make one appear. The new pattern is saved with the stack.

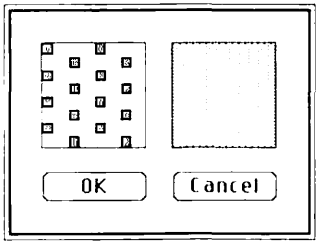


Figure 6-96
Pattern editor

To fill enclosed shapes with the selected pattern as you draw them, check the Draw Filled command on the Options menu.

To fill enclosed shapes after you draw them, use the Bucket (described earlier in this chapter).

To fill a selected area with the current pattern, choose Fill under the Paint menu.

To draw borders in the selected pattern, press the Option key as you drag.

- *Patterns menu short cut:* Press Tab with any Paint tool selected or double-click the Bucket tool to make the Patterns palette appear and disappear.

Chapter 7

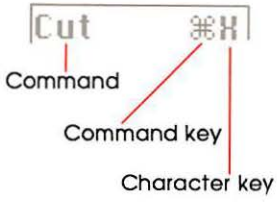
Keyboard Commands

As in all Macintosh applications, you issue many HyperCard commands by making choices from menus. But HyperCard extends what you can do by making many commands available from the keyboard. In fact, there's a whole range of commands that you can issue only by pressing one or more keys and using the mouse at the same time.

- "Command Key Menu Commands" gives a list of the commands you execute by first pressing and holding down the Command key and then a specific character.
- "Browsing" shows you how to get around the stacks and from card to card quickly.
- "Text Editing" lists the keys to press to change fonts, type sizes, styles, and so on.
- "Paint Power Keys" lists the graphics commands you can issue with a single keystroke.
- "Dragging With Modifier Keys" explains what happens if you drag both with a particular tool selected and with the Command, Option, or Shift key held down.
- "Miscellaneous keyboard shortcuts" lists the shortcuts that don't fit easily into other areas.

Because all these sections are really summaries, you'll also find information about where to look for more help.

Command key menu commands



As you look at a menu, you'll see some commands followed by a symbol and a character. The propeller-shaped symbol represents the Command key. You can issue such a menu command by pressing the Command key at the same time that you press the specified character key.

- *Command or Apple:* The Command key is marked by a propeller-shaped symbol. On some Macintosh keyboards, the key also has an Apple symbol, and some Macintosh manuals might call it the Apple key. Both names refer to the same key.

The first chart shows the keyboard equivalent keys by menu; the second chart shows them in alphabetic order by command name.

Table 7-1
Keyboard equivalents by menu

Menu	Keyboard equivalent	Command
Edit	Command-B	Background (toggle)
	Command-C	Copy
	Command-N	New Card
	Command-T	Text Style
	Command-V	Paste
	Command-X	Cut
	Command-Z	Undo
File	Command-O	Open Stack
	Command-P	Print Card
	Command-Q	Quit HyperCard
Go	Command-F	Find
	Command-H	Home
	Command-M	Message (toggle)
	Command-R	Recent
	Command-1	First
	Command-2	Prev
	Command-3	Next
	Command-4	Last
	Command-?	Help
	Command-Tilde (~)	Back
Objects	Command-plus (+)	Bring Closer
	Command-minus (-)	Send Farther
Paint	Command-A	Select All
	Command-K	Keep
	Command-S	Select

Table 7-2
Keyboard equivalents by command

Command	Keyboard equivalent	Menu
Back	Command-Tilde (~)	Go
Background	Command-B	Edit
Bring Closer	Command-plus (+)	Objects
Copy	Command-C	Edit
Cut	Command-X	Edit
Find	Command-F	Go
First	Command-1	Go
Help	Command-?	Go

Table 7-2 (continued)
Keyboard equivalents by command

Keyboard equivalent	Command	Menu
Home	Command-H	Go
Keep	Command-K	Paint
Last	Command-4	Go
Message	Command-M	Go
New Card	Command-N	Edit
Next	Command-3	Go
Open Stack	Command-O	File
Paste	Command-V	Edit
Prev	Command-2	Go
Print Card	Command-P	File
Quit HyperCard	Command-Q	File
Recent	Command-R	Go
Select	Command-S	Paint
Select All	Command-A	Paint
Send Farther	Command-minus (-)	Objects
Text Style	Command-T	Edit
Undo	Command-Z	Edit

For details on all these commands, see Chapter 6.

Browsing

You can use any of these keystrokes except Tilde (~) and Esc at any time. To use Tilde or Esc for browsing, you must be using one of the General tools. When a Paint tool is selected, pressing the Tilde key undoes the last Paint action; use Command-Tilde to move to the most recently viewed card.

For combinations that require you to use the Command key, be sure to press and hold down the Command key before you press the second key.

Table 7-3
Browsing from the keyboard

Destination	Keyboard short cut
Help	Command-?
Home	Command-H
First card in stack	Command-1 or Command–Left Arrow
Previous card in stack	Command-2 or Left Arrow
Next card in stack	Command-3 or Right Arrow
Last card in stack	Command-4 or Command–Right Arrow
Retrace through cards viewed	Tilde (~), Esc, or Down Arrow
Forward through retraced cards	Up Arrow
Record of cards recently seen	Command-R
Select Browse tool	Command-Tab
Store current card's location for quick return (Many locations can be stored)	Command–Down Arrow
Return to stored location (last in-first out order)	Command–Up Arrow
Next field on card	Tab
Previous field on card	Shift-Tab

For a tutorial on browsing, see Chapter 1. For information on creating buttons for browsing, see "Button Tool" and "New Button" in Chapter 6.

Text editing

You can use the combination keystrokes in Table 7-4 when you're using either the Browse tool or the Paint Text tool. Be sure to press and hold down the Command key *before* you press the character key.

Table 7-4
Text editing keys

Function	Key combination
Font, next in system	Command-Shift->
Font, previous in system	Command-Shift-<
Text style dialog box	Command-T
Space, less between lines	Command-Option-<
Space, more between lines	Command-Option->
Text size, larger	Command->
Text size, smaller	Command-<

For details on creating the fields in which regular (as opposed to Paint) text appears, see Chapter 4. See Chapter 6 for information on both regular and Paint text.

Paint power keys

Table 7-5, which also appears in Chapter 5, shows the Paint power keys. You must be using a Paint tool with Power Keys checked in the Options menu. "Toggle" after a command means that pressing the same key turns the option off.

Table 7-5
Power keys available when using Paint tools

Command	Key	Menu
Black pattern	B	Patterns
Darken	D	Paint
Draw Centered (toggle)	C	Options
Draw Multiple (toggle)	M	Options
Fill	F	Paint
Flip Horizontal	H	Paint
Flip Vertical	V	Paint
Grid (toggle)	G	Options
Invert	I	Paint
Lighten	L	Paint
Line size	1–4, 6, 8	Options
Opaque	O	Paint
Pickup	P	Paint
Revert	R	Paint
Rotate Left	[	Paint
Rotate Right	]	Paint
Select	S	Paint
Select All	A	Paint
Trace Edges	E	Paint
Transparent	T	Paint
White pattern	W	Patterns

Dragging with modifier keys

Table 7-6 shows you what happens when you drag with different tools selected and you hold down different modifier keys. Tools that aren't listed aren't affected by modifiers.

For detailed information on all the tools, see Chapter 6.

Table 7-6
Effects of modified dragging

Tool	With Command key	With Shift key	With Option key
Button	Create button	Move button horizontal or vertical	Copy button
Field	Create field	Move field horizontal or vertical	Copy field
Selection	Select tightly	Move selection horizontal or vertical	Copy selection
Lasso	Lasso everything	Move selection horizontal or vertical	Copy selection
Line	No effect	Draw at 15° angles	Draw with pattern
Eraser	Erase white	Erase straight horizontal or vertical	No effect
Pencil	Get/leave FatBits	Draw straight horizontal or vertical	No effect
Rectangle	No effect	Draw square	Patterned border
Curve	No effect	No effect	Patterned border
Brush	Erase what you paint over	Paint straight horizontal or vertical	No effect
Spray	Erase what you spray over	Spray straight horizontal or vertical	No effect
Rounded Rectangle	No effect	Draw square with round corners	Patterned border
Polygon	No effect	Draw at 15° angles	Draw with pattern
Oval	No effect	Draw circle	Patterned border
Regular polygon	No effect	Rotate in 15° increments	Patterned border

Miscellaneous keyboard short cuts

The following table lists keyboard short cuts that don't fit easily into other categories.

Table 7-7
Miscellaneous actions

Key or combination	Effect
Command-Option*	Show all buttons (Browse or Button tool selected)
Command-Shift-Option*	Show all fields (Field tool selected)
Command-Backspace	Delete current card

Table 7-7 (continued)
Miscellaneous actions

Key or combination	Effect
Command-Period	Cancel current action (like Printing)
Command–Space bar	Hide and show menu bar
Command-Tab	Select Browse tool
Command-Tilde (~)	Go to most recent card displayed (Paint tool selected)
Command-Shift-V	Paste miniature card image (with card in Clipboard)
Command–Down Arrow	Store current card's location for quick return (you can have many locations stored)
Command–Up Arrow	Return to stored location (last in–first out order)
Option-D	Show card picture (with Paint tool)
Option-O	Show opaque areas (with Paint tool)
Option-Tab	Toggle Tools palette
Tilde (~)	Same as Back command (General tool selected) Undo most recent action (Paint tool selected)
Down Arrow	Same as Back command (any tool selected)
Up Arrow	Come forward through reviewed cards
Tab	Toggle Patterns palette (Paint tool selected) Advance insertion point to next background field (Browse tool selected)

*Darker outlines indicate background fields or buttons.

Holding down the Command key before and as you drag through the File menu shows the full file menu, even if Browsing or Typing is clicked on the User Preferences card in the Home stack and/or in a stack's Protect Stack dialog.

Appendix A

Common HyperCard Messages

You can send a one-line command (called a **message**) to HyperCard through the Message box. Use messages to save time traveling through stacks, to launch other applications, and to retrieve important information quickly.

- To send a message:

1. **Choose Message from the Go menu.**

   Or press Command-M.

2. **Type the message into the Message box.**

   Use the syntax shown in the message descriptions section that follows.

3. **Press Return.**

   You can also press Enter.

Message descriptions

This section describes the most common HyperCard messages that you might type into the Message box. The syntax is in its simplest form.

Here's an example for the Go message, followed by a list of ways you could type the same message to get to the same place (the first card of the Art Ideas stack):

```
Go Art Ideas
Go to Art Ideas
Go stack Art Ideas
Go to stack Art Ideas
Go to card 1 of stack Art Ideas
```

HyperTalk: The source of all messages

The material in this appendix represents a small subset of HyperTalk™, HyperCard's scripting language.

Using HyperTalk, you write scripts for buttons, fields, cards, backgrounds, and stacks; these scripts give you much greater control over HyperCard than is available using only the menu commands. HyperTalk is an easy language to learn, and is especially good as a first language for novice programmers.

For a complete description of HyperTalk, see the *HyperCard Script Language Guide,* available from:

Apple Programmer's and Developer's Association
290 SW 43rd Street
Renton, WA 98055
Telephone: (206) 251-6548

How to read messages

Here are some hints to help you read the messages in this appendix and to use these messages:

- A message is all on one line.
- The first word of a message is its name. When a message is more than one word, you'll find a note saying so.
- Words in italics stand for other words. For example, *menuItem* means the name of any item in any menu.
- Some parts are optional helper words; they appear in square brackets (but don't type the brackets into the Message box).
- The remaining part of a message is usually a description of something ("with document," for example).
- All words can be in capital or small letters.

Date

```
The Date
```

```
The Long Date
```

This message puts the current date into the Message box in the form mm/dd/yy:

Type `The Date`

You get 3/27/87

Alternatively, Long Date produces a full date:

Type `The Long Date`

You get Friday, March 27, 1987 (or whatever the date is, in this form)

You must start this message with the word "The."

DoMenu

`DoMenu` *menuItem*

This message does *menuItem* as if you had chosen the command from a HyperCard menu:

Type `DoMenu Home`

You get the first card in the Home stack

(Home is on the Go menu.) You must type *menuItem* exactly as it appears in the menu. For example, to open a stack, type

```
DoMenu Open Stack...
```

The three dots are part of the menu item name.

Go

`Go [to]` *description of a card or stack*

This message brings you to the designated card in the designated stack. If you designate a stack without designating a card, you go to the first card in that stack:

Type `Go Art Ideas`

You get the first card in the Art Ideas stack

If the stack you specify isn't in the Help Stacks folder or the HyperCard Stacks folder, be sure to list the search path on the appropriate card in the Home stack. (See "Search Paths" in Chapter 3).

Hide

```
Hide tool window
Hide pattern window
Hide message
Hide menubar
```

This message hides what you tell it to. It's as though you'd clicked a close box. `Hide menubar` hides the menu bar, giving you more display space (as though you'd pressed Command–Space bar).

Type `Hide tool window`

You get Tools menu goes away

Also see `Show`, later in this appendix.

Open

`Open` *application*

`Open` *document* `with` *application*

This command opens the application you've named. If you name a document, HyperCard opens that document with the application you name.

Type `Open Memo with MacWrite`

You get the document Memo opened in MacWrite

If the document or application you specify isn't at the top level of the file hierarchy, be sure that the search path is listed on the appropriate card in the Home stack. (See "Search Paths" in Chapter 3).

When you quit the application, you end up back at the card you were on when you sent the message.

Pop Card

`Pop Card`

This command retrieves a card you've marked with the `Push Card` command (described later in this appendix). Once a card is retrieved, you can't get it back again using `Pop Card` unless you mark it again using `Push Card`.

Pushed cards are popped in last-in, first-out order.

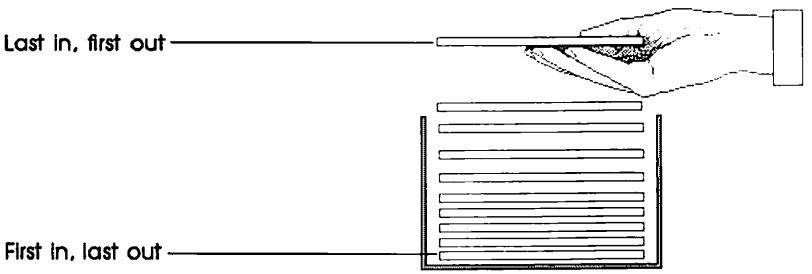


Figure A-1
Popping order

Pressing Command–Up Arrow does the same thing as sending a `Pop Card` command.

- *Unfamiliar card popped:* Occasionally when you issue a `Pop Card` command, a card might appear that you didn't push. HyperTalk scripts can issue their own `Push Card` commands as you browse through stacks; your `Pop Card` commands make these pushed cards appear. Eventually, any card that you pushed will also appear; just keep popping.

Also see `Push Card`, next in this appendix.

Push Card

```
Push Card
```

This command lets you mark the card you're working on for quick retrieval later. Use this command to mark a card, wander through the stacks (perhaps to find a graphic you want to paste onto the marked card), and then retrieve the card again using the `Pop Card` command.

You can push any number of cards for later retrieval.

Pushing Command–Down Arrow does the same thing as sending a `Push Card` command.

Also see `Pop Card`, the immediately previous command in this appendix.

Show

```
Show tool window
Show pattern window
Show message
Show menubar
```

This message shows what you tell it to. It's as though you'd torn off a palette, or chosen Message from the Go menu. `Show menubar` makes the menu bar visible at the top of the window.

Type `Show pattern window`

You get The patterns palette on the screen

If you try to show something that isn't hidden, nothing happens.

Also see `Hide`, earlier in this appendix.

Show Cards

```
Show cards
Show all cards
Show number of cards
```

This message shows the cards in the current stack in rapid succession.

`Show cards` shows all cards in the current stack repeatedly until you click the mouse. `Show all cards` goes rapidly through the stack once, starting and ending with the current card. `Show` *number of* `cards` shows as many cards as you specify, starting with the card following the current card.

Type `Show 4 cards`

You get next four cards in stack briefly on screen

To stop `Show Cards` at any point, click the mouse. The card you're viewing when you click the mouse remains on the screen.

Time

```
The Time
The Long Time
```

This message puts the current time into the Message box in the form hh:mm AM or PM

Type `The Time`

You get 2:57 PM (or whatever time it is, in this form)

Alternatively, Long time includes seconds:

Type `The Long Time`

You get 2:57:23 PM

You have to start this message with the word "The."

Appendix B

HyperCard Disks

This appendix is a directory to the stacks and other files that come with HyperCard. It tells you what files come with HyperCard, what disk each document is on, and what each document is for.

HyperCard Startup

This disk holds the HyperCard application, the HyperCard Stacks folder, and the following files:

General
System
ImageWriter

Macintosh II Do not use the System file on the HyperCard Startup disk to run the Macintosh II, even though its version number is 4.1: it will not work properly. Use whatever System Folder you currently have to start up your computer.

The HyperCard Stacks folder holds the following stacks:

Address
Area Codes
Datebook
File Index
Home
Phone
Quotations
HyperCalc

HyperCard & Stacks

The HyperCard & Stacks disk holds a duplicate copy of the HyperCard application, a duplicate copy of the HyperCard Stacks folder, plus a folder called More Stacks. More Stacks contains the following stacks:

Book Shelf
Documents
Periodic Table
Plots
Slide Show

HyperCard Help

The HyperCard Help disk contains a single folder, Help Stacks. The folder contains three stacks:

Help
Help Index
Help Samples

HyperCard Ideas

The HyperCard Ideas disk holds a single folder, Idea Stacks. The folder contains five stacks:

Art Ideas
Button Ideas
Card Ideas
Clip Art
Stack Ideas

About the provided HyperCard documents

Here's a description of the documents that come with HyperCard, and what you'd use them for:

Address	A name and address file. Keep all your important names and addresses here.
Area Codes	A listing of all the telephone area codes in Canada and the United States. You can look for an area code if you know the city (or nearby city), or you can find the city served by any area code.
Art Ideas	A collection of art you can use in your own documents. Use these to help create pictures and buttons.
Book Shelf	An example of a graphic table of contents.
Button Ideas	Library of working buttons. Cut and paste these to your own documents.
Card Ideas	Individual cards you might include in documents that you create. (A card is HyperCard's fundamental unit of information.)
Clip Art	Artwork you can use to dress up your own HyperCard documents.
Datebook	Monthly calendar, week-at-a-peek memo book, plus a things-to-do list. Use it to organize your daily chores and to keep track of important meetings.
Documents	A collection of document examples.
File Index	A set of file cards for whatever you need to file.
Help	On-line directions for using HyperCard. It provides hints and tips for using all of HyperCard's features.
Help Samples	Part of the on-line Help system.
Help Index	Part of the on-line Help system.

Home	A graphic directory of all the documents that come with HyperCard. Use it as your "base of operations." You must have Home for HyperCard to operate.
Periodic Table	A listing in classic form of the chemical elements.
Phone	A dialer for your telephone.
Plots	A demonstration of HyperCard's ability to plot information in different formats.
Quotations	A collection of famous quotations, designed to help you learn to use HyperCard.
Slide Show	A collection of clip art, digitally scanned into the Macintosh.
Stack Ideas	Collection of cards to use as templates for creating new stacks.
HyperCalc	A mini-spreadsheet.

Important You must have the Home stack on the same disk as the HyperCard application for HyperCard to operate. You can remove all other stacks, but you must not remove the Home stack.

Glossary

Apple key: See **Command key.**

background: That which is shared by a number of cards; a card's basic template. The background is composed of the **background picture, background fields,** and **background buttons.**

background button: A button that appears on, and whose actions are the same for, all cards with the same background. Contrast with **card button.**

background field: A field whose size, position, and text attributes remain constant on all cards associated with a particular background, but whose text changes from card to card. Contrast with **card field.**

background picture: A picture that applies to a series of cards. You see the Background picture by choosing Background from the Edit menu. Contrast with **card picture.**

browse: To wander through HyperCard's stacks.

Browse tool: The tool you use to click buttons and to set the insertion point in fields.

button: Something that initiates a HyperCard action (making a connection, launching an application, starting a visual or sound effect, and so on) when you click it. See also **background button, card button.**

button action: That which happens when a button is pressed.

Button tool: The tool you use to create, change, and select buttons.

card: HyperCard's basic entity—one screenful of information.

card button: A button that appears on, and whose actions apply to, a single card. Contrast with **background button.**

card field: A field whose size, position, text attributes, and contents are limited to the card on which the field is created. Contrast with **background field.**

card picture: A picture that applies to a specific card. Contrast with **background picture.**

Command key: The key at the lower-left side of the keyboard that has a propeller-shaped symbol. On some keyboards this key also has an Apple symbol and might be called the *Apple key*.

current: (adj.) The one you're using now. For example, the current card is the one you can see on your screen.

field: The place where you type regular (as opposed to Paint) text. Also, the tool you use to create a field. HyperCard has two kinds of fields—**card fields** and **background fields.**

Field tool: The tool you use to create, change, and select fields.

General tool: Any HyperCard tool that isn't a Paint tool. The General tools are Browse, Button, and Field.

Home card: A special card that acts as a pictorial index to stacks. Choose Home from the Go menu to get to Home (or press Command-H).

HyperTalk: HyperCard's built-in script language for HyperCard users.

keyboard equivalent key: A key you press together with the Command key to issue a menu command.

layer: The order of a button or field relative to other buttons or fields on the same card and background. The object created most recently is ordinarily the topmost object (that is on the front layer).

MacPaint document: Document created by the Macintosh MacPaint application, or any application that creates MacPaint-compatible graphics.

message: A command you send to HyperCard through a **script** or through the Message box. Some examples of HyperTalk messages are `Go`, `Show`, `Hide`, `Pop Card`, and `Push Card`.

on-line help: assistance you can get from an application program while it's running. In this user's guide, on-line help refers to HyperCard's disk-based Help system.

Paint text: Text you type using the Paint Text tool. Paint text can appear anywhere, while **regular text** must appear in a field created with the Field tool. When you finalize Paint text by clicking, it becomes part of a picture.

Paint tool: Any HyperCard tool you use to make pictures. Tools include Lasso, Brush, Spray, Eraser, Paint Text, and many others.

palette: The name for a **tear-off menu** when it's been torn off. A palette remains visible on the screen so you can use it without having to pull down the menu. HyperCard has two palettes—Tools and Patterns.

picture: Any graphic or part of a graphic created with a Paint tool. Also, an imported MacPaint document or part of a MacPaint document.

point: In printing, the measurement of the height of a text character; one point is about 1/72 of an inch. When you select a font, you can also select a point size, such as 10-point, 12-point, and so on.

power key: One of a number of keys on the Macintosh keyboard you can press to initiate a menu action when a Paint tool is active. Power keys are enabled when you choose Power Keys from the Options menu or you check Power Keys in the User Preferences card in the Home stack.

Recent: A special dialog box that holds pictorial representations of the last 42 unique cards viewed. Choose Recent from the Go menu to get the dialog box.

regular text: Text you type inside a field. You use the Browse tool to set an insertion point in a field and then type. Regular text is editable and searchable, while **Paint text** is not.

script: A series of commands written in **HyperTalk** and associated with a particular object.

search path: The route the computer must follow to retrieve a file you ask for.

stack: A group of cards based on the same theme. A HyperCard document. See also **card.**

tear-off menu: A menu that you can convert to a **palette** by dragging the pointer beyond the menu's edge. HyperCard has two tear-off menus—Tools and Patterns.

text field: See **field.**

text property: A quality or attribute of a character's appearance. Properties include style, font, and size.

tool: An implement you use to do work. HyperCard has tools for browsing through cards and stacks, creating text fields, editing text, making buttons, and creating and editing pictures.

user level: The setting on the User Preferences card in the Home stack that lets you use HyperCard's tools and abilities. Five user levels are available: Browsing, Typing, Painting, Authoring, and Scripting.

Index

A

Address stack (tutorial) 7, 14. *See also* card(s); stack(s)
addresses, searching for 7–10. *See also* Address stack
alignment 100–101, 114. *See also* Text Style command
alphabetical order, cards and stacks 13. *See also* Sort
angles, changing and constraining 137. *See also* Line tool
Apple key. *See* Command key
Art Ideas stack 24–25
authoring (tutorial) 31–46
  on User Preferences card 51

B

Back command (Go menu) 116–117
background(s) 115–116. *See also* Background command; Bkgnd Info
  buttons. *See* background buttons
  changing (Bkgnd Info command) 157–158
  copying 86, 110–111
  creating 115–116, 163
  cutting 108
  definition of 40
  deleting 93, 130, 158
  fields. *See* background fields
  names, changing 158
  New Card command and 112
  pictures. *See* background pictures
  selected in printing 99
  stripes on Menu bar 115–116
  versus cards 40–44
background buttons 41, 115–116, 162
  covered by card buttons 115
  creating 115–116, 162
Background command (Edit menu) 115–116
background fields 115, 162
  changing 58
  creating (Background command) 56, 162, 115
  deleting 130
  description of 41, 54, 115–116
  numbers 154
  versus card fields 44
background pictures 40–44
  editing (Background command) 115–116
  erasing (Eraser) 136
  selecting 165
Backspace key, clearing selected data with 112
Bkgnd Info command (Objects menu) 157–158. *See also* background(s)
  Can't delete background 158
blowing up pictures. *See* FatBits command
borderless rectangles 139
borders 145. *See also* Line Size; Line tool; Oval tool; Regular Polygon tool
  changing 137, 138, 145, 176
  drawing with current pattern 145
  filled with current pattern 145
  in patterns 183
Bring Closer command (Objects menu) 61, 160–161
Browse tool 4, 18, 59, 65–66
  creating editable text with 54, 65–66
  selecting (Home command) 117
  versus Button 128
browsing 3–5, 124. *See also* Browse tool
  keyboard commands for 188–189
  on User Preferences card 51
  powers associated with 92
  recap of 10
  shortcut for 32
  tutorial 3–6
Brush Shape command (Options menu) 135, 176
Brush (Tools menu) 135–136. *See also* Brush Shape; painting; Paint tools
  dragging with modifier keys 79
  erasing with 136
  painting straight or horizontal lines with 136
  painting with current pattern 135
Bucket 140–141

button(s) 147–152. *See also* background buttons; Button Info; Button tool; icons; pictures
activating 4
background 40–44, 115, 162
Browse tool and 126
card 41, 115
copying 109, 128
creating (New Button command) 162
cutting (Cut Button command) 128
deleting (Clear Button command) 35, 128
Help, adding 36
highlighted 149–150
icons used as 150–151
information about (Button Info command) 147–152
layers 148
linking 151–152
moving 34–35, 128, 160–161
moving dotted line around 35
names of (Button Info command) 148
numbers 148
opaque 149
pasting (Paste command) 111
rectangle 149
rounded rectangle 149
selecting 35, 127–128
shadowed 149
shapes of 149
sizing 128
style of (Button Info command) 149
Telephone 34–35
transparent 107, 149
viewing 18
Button Ideas 36
Button Info command (Objects menu) 147–152. *See also* button(s); Button tool
Auto hilite 149–150
Button ID 148
Button name 148
Button number and layers 148
dialog box 147
Icon 150–151
Script 152
Show name 148
Style 149
LinkTo 151–152
Button tool (Tools menu) 126
Button tool, versus Browse tool 128

C

cameras 74, 81
canceling actions. *See* cutting; deleting; Undo command
card(s). *See also* Home; stack(s); User Preferences card
adding 11–12, 112–113
buttons. *See* card buttons
canceling actions on (Undo command) 106
copying 113, 109–110, 111
creating 41, 112–113
cutting (Cut Card command) 108, 113
definition of 3
deleting 93, 113, 156
directory of. *See* Home
examples of 4
fields. *See* card fields
first card, selecting (First command) 119
linking 151-152
moving 156–157
moving between. *See* Go menu
names of (Card Info command) 156
numbers 156
pasting 111
position in stack 12–14
printing 95–96
reviewing. *See* Recent
saving snapshot of (Export Paint command) 88–89
searching. *See* Find command
search path 49
sharing pictures among 74
To Do 32–33
versus backgrounds 40–44
card buttons 41, 115, 129
card fields 41, 54
cover background fields 115
numbers 154
versus background fields 44
Card Info command (Objects menu) 155–157
Can't delete card 156
Card number 156
changing card position in stack 156–157
description of 155
dialog box 155
changes, saving 105, 171
changing. *See also specific topic*
address cards 10–11
angles 137. *See also* Line tool
backgrounds 157–158
cards 23–24, 156–157
column width 102
fields 37–38, 58, 61, 63–64, 129–131, 154
fonts 69, 153
menu bar 126
passwords 90–91
stacks 87, 152
tab order 61
text 10–11, 68–71
user level 31, 50-52
label size 100–101
circles, Oval tool and 141
cleaning paint spills 141
Clear Button command (Edit menu) 35, 128
Clear command (Edit menu) 50, 112
Clear Field command (Edit menu) 130
Clear key (keypad) 112
clicking (mouse technique) 4
Clipboard 26, 27
Copy command and 108, 113
Cut command and 107
importing graphics with 81
non-MacPaint pictures and 81
pasting from 111
pictures and 74
unaffected by Clear command 112
unaffected by Delete Card command 113
columns, printing 102. *See also* printing; Print Report

Command key 186
commands. *See also* keyboard commands; messages; power keys *or specific topic*
Back (Go menu) 116–117
Background (Edit menu) 115–116
Bkgnd Info (Objects menu) 157–158
Bring Closer (Objects menu) 160–161
Brush Shape (Options menu) 176
Button Info (Objects menu) 147–152
Card Info (Objects menu) 155–157
Clear (Edit menu) 112
Clear Button (Edit menu) 128
Clear Field (Edit menu) 130
Compact Stack (File menu) 89
Copy (Edit menu) 108–110
Copy Button (Tools menu) 128
Copy Card (Edit menu) 113
Copy Field (Edit menu) 130
Copy Picture (Edit menu) 108–109
Cut (Edit menu) 107–108
Cut Button (Edit menu) 128
Cut Card (Edit menu) 113
Cut Field (Edit menu) 59
Darken (Paint menu) 167
Delete Card (Edit menu) 113
Delete Stack (File menu) 93
Draw Centered (Options menu) 180–181
Draw Filled (Options menu) 178–180
Draw Multiple (Options menu) 181–182
Edit Pattern (Options menu) 177–178
Export Paint (File menu) 88–89
FatBits (Options menu) 173–174
Field Info (Object menu) 153–155
Fill (Paint menu) 165
Find (Go menu) 120–122
First (Go menu) 119
Flip Horizontal (Paint menu) 170
Flip Vertical (Paint menu) 169
Grid (Options menu) 172
Help (Go menu) 118
Home (Go menu) 117
Import Paint (File menu) 88
Invert (Paint menu) 165
Keep (Paint menu) 171
Last (Go menu) 120
Lighten (Paint menu) 167
Line Size (Options menu) 176
Message (Go menu) 123
New Background (Objects menu) 163
New Button (Objects menu) 162
New Card (Edit menu) 112–113
New Field (Objects menu) 162
New Stack (File menu) 86
Next (Go menu) 119
Opaque (Paint menu) 170
Open stack (File menu) 86–87
Page Setup (File menu) 94
Paste (Edit menu) 111
Paste Button (Edit menu) 36
Paste Card (Edit menu) 113
Paste Field (Edit menu) 62
Paste Picture (Edit menu) 27
Pickup (Paint menu) 166
Polygon Sides (Options menu) 178
Power Keys (Options menu) 174–175
Prev (Go menu) 119
Print Card (File menu) 95
Print Report (File menu) 98–105
Print Stack (File menu) 95–97
Recent (Go menu) 118–119
Revert (Paint menu) 171
Rotate Left (Paint menu) 168
Rotate Right (Paint menu) 169
Save, lack of 85
Save a Copy (File menu) 87
Select (Paint menu) 164
Select All (Paint menu) 165
Send Farther (Objects menu) 161
Stack Info (Objects menu) 159–160
Trace Edges (Paint menu) 168
Transparent (Paint menu) 171
Undo (Edit menu) 106
Compact Stack command (File menu) 89, 160
connecting. *See* linking
Copy Card command (Edit menu) 111, 113
Copy command (Edit menu) 74, 108–110
copying backgrounds 110
copying buttons and fields 109
copying cards 109–110
copying pictures 108–109
Copy Field command (Edit menu) 39, 61, 130
copying. *See also specific topic*
backgrounds 110–111
buttons 36–37, 109, 128
cards 109–110, 113
fields 39, 61–62, 109, 130
from Clipboard (Paste command) 111
pictures 108–109,
text 67
Copy Pictures command (Edit menu) 108–109
creating. *See also specific topic*
backgrounds 115, 163
buttons 49, 115, 124, 126–128, 162
fields 55–57, 115, 124, 129–131, 162
movable Tools palette 125
shapes 144
stacks 86
text 65–71
Curve tool (Tools menu) 79, 142, 180
customizing, tutorial 19–46
Cut Button command (Edit menu) 128
Cut Card command (Edit menu) 111, 113
Cut command (Edit menu) 107–108
Cut Field command (Edit menu) 59
cutting. *See also* deleting; erasing
cards 108, 113
buttons 107, 128

D

Darken command (Paint menu) 167
date, headers and 97, 105
Date message 197
default
  field style 64
  text attributes 144
Delete Card command (Edit menu) 113
Delete key, clearing selected data with 112
Delete Stack command (File menu) 93
deleting. *See also* cutting; erasing
  backgrounds 93, 130, 158
  buttons 35, 128
  cards 14, 93, 113, 156
  fields 59
  stacks 93
  without inserting on Clipboard 112
dialog boxes
  Background Info 158
  Brush Shape 176
  Button Info 147
  Card Info 155
  Directory 86
  Edit Pattern 183
  Field Info 153
  Line Size 176
  New Button 128
  New Field 131
  Page Setup 94
  Password 91
  Polygon Sides 178
  Print Report 98
  Print Stack 95
  Stack Info 159
  Text Style 68
  "Where is?" 49
digitized images, importing 81
digitizing cameras 74
Directory dialog box 86
disk-based help. *See* Help system
disk drives. *See* hard disk drives; 3.5-inch disk drives
disks, HyperCard xviii, 203–204
documentation, advanced xxii
documents, HyperCard 205–206. *See also* file(s); stack(s)
DoMenu message 197
dots, changing 135, 165, 167, 177. *See also* painting
double-clicking (mouse technique) 78
dragging (mouse technique) 10–11
  modifier keys and 191–192
  problems with 132
Draw Centered command (Options menu) 180–181
Draw Filled command (Options menu) 178–180
  Curve tool and 180
  Polygon tool and 179–180
  short cut for 179
drawing. *See* painting; pictures *or specific command or tool*
Draw Multiple command (Options menu) 181–182
duplicating. *See* copying

E

edges, tracing 168
Edit menu 105–116. *See also* commands *or specific command*
  description of 105
  short and full 51, 106
editing (tutorial) 17–18. *See also specific topic*
  patterns 177, 183
  pictures 29
  text 66–67, 124, 126, 190
Edit Pattern command (Options menu) 177–178, 183
entering text 51, 66–67, 126, 143. *See also* text
Eraser 79, 136. *See also* erasing; painting
erasing. *See also* cutting; deleting; editing *or specific topic*
  background pictures 136
  dots 135
  pictures 136
  stack contents 93
  with Brush 136
  with Spray tool 138
Export Paint 88–89

F

FatBits command (Options menu) 173–174
field(s) 54–65. *See also* background fields; card fields; text fields
  active Paint 114
  background 40–44, 54, 115, 130, 154, 162
  card versus background 44, 54, 115, 154
  changing 37–39, 58, 61, 63–64, 129–131, 154
  clearing (Clear Field command) 130
  copying 39, 61–62, 109, 130
    Copy command (does not copy text) 109
    Copy Field command 61–62
  creating (New Field command) 56–57, 115, 124, 129–131, 162
  cutting (Cut command) 107
  definition of 11, 54–55
  deleting 59, 93
  designing (Field Info command) 153
  ID 155
  information about (Field Info command) 130–131, 153–155
  invisible 59
  layers 60–61
  locking and unlocking 64
  moving 38, 57, 160–161
  moving between 59–60
  names 62–63, 103
  New Card command and 112
  number of lines in 129
  numbers (Field Info command) 60–61, 153–154
  overlapping 55
  pasting (Paste command) 60, 107, 111
  placing 57
  printing 100–103
  searching in a specific (Find command) 121–122

selected, moving dotted line and 39
selecting 130
setting text properties for (Text Style command) 114
size, changing 58
style, changing 63–64
tab order and 60–61
text and 67–70, 129–131
transparent 162
viewing 67
wrapping in 58
Field Info command (Objects menu) 130–131, 153–155
description of 153
Field ID 155
Field number 154
Lock Text 64, 153
Script 155
Show Lines 153
Wide Margins 153
field numbers, changing 61
Field tool (Tools menu) 56, 67, 129–131
file(s). *See also* HyperCard disks; System file; text
copying xviii
exporting (Export Paint command) 88–89
importing MacPaint-compatible files 88
retrieving 49
File menu 84–105. *See also* commands *or specific command*
description of 84
short and full 51, 85
Fill command (Paint menu) 165. *See also* filling pictures
filling pictures. *See also* Bucket; Draw Fill; Fill; painting
areas with selected patterns 140
borders with current pattern 145
Draw Filled command and 178–180, 183
Fill command and 165
Find command (Go menu) 8–9, 120–122. *See also* searching
description of 8–9, 18
can't use with Paint Text 144
Message box 8
quotation marks and 8
searching for part of a word or name 9
searching specific field 121–122
Finder
stack icons and 4
startup disks and xvii
version number of xvi
First command (Go menu) 13, 18, 112, 119
Flip Horizontal command (Paint menu) 170
Flip Vertical command (Paint menu) 169
fonts, changing (Field Info command) 69, 153
formats
column 101–102
printing 98–105
row 102–104
page 96–97. *See also* printing; Print Report command
free-form shapes. *See* Curve tool

G

General tools. *See also* Browse tools; Button tool; Field tool
Bkgnd Info command and 157
description of 124
versus Paint 84
getting started (tutorial) 2–3
Go menu 6, 116–123. *See also* commands *or specific command*
Go message 197–198
graphics. *See* painting; Paint tools; pictures
Grid command (Options menu) 172

H

hard disk drives
installing HyperCard on xviii–xix
starting up from 2
headers 97, 105. *See also* printing; Print Report command
height, text 70–71
Help button, adding 36
Help command (Go menu) 14, 118
Help disk. *See* HyperCard disks
Help stack (tutorial) 14–15
Help system xxi, 4–5, 14–15, 118. *See also* Stackware
Hide message 198
hiding Message box 123
Home 3, 6–7, 47–52
creating button for 49
definition of 6
going to (Home command) 18, 52, 117
linking to a stack 44–46
search paths 49–50
stack. *See* Home stack
tutorial 6–7
User Preferences and 50–52
Home command (Go menu) 18, 52, 117
Home icon 18
Home stack 6, 47–52
dangers of deleting 48
User Preferences and 50–52
horizontal pictures 170
horizontal printing 94, 96
HyperCard. *See also specific topic*
commands to. *See* messages
customizing (tutorial) 19–46
disks xvii, 203–204
installing xvii–xix
introduction to xv–xxii
LaserWriter and xvii
messages 195–201
MultiFinder and xvi
package contents xvii
quitting 105
user levels in 22–23, 50–52
What you need to use xvi, xvii
HyperCard icon 2

I, J

icons. *See also* button(s)
Address 7
as buttons 150–151
Browse 4
Button Ideas 36
Home 18
HyperCard 2
Intro 5

Quick View 14
Sort 13
Stack 4
To Do 32
ID, Button. *See* Button Info command
ID, Field. *See* Field Info command
Ideas disk. *See* HyperCard disks
images. *See* pictures; shapes
ImageWriter 81, 101
importing pictures 74, 81, 88. *See also* pictures
MacPaint-compatible files 88
Import Paint command (File menu) 81, 88
insertion point, setting 65, 66
installing HyperCard xviii–xix
Intro icon 5
Invert command (Paint menu) 165
invisible fields and text 58–59

K

Keep command (Paint menu) 171
keeping changes. *See* saving
keyboard commands 185–193. *See also* power keys
browsing 188–189
editing text 190
modifier keys 79
table of (by command) 187–188
table of (by menu) 187
keyboard equivalents. *See* keyboard commands
keyboard short cuts (misc. table of) 192–193
keypad, Clear key on 112
keys
Backspace 112
Clear (keypad) 112
Command 186
Delete 112
modifier 79–80, 191–192
power 75, 190–191
Tab 59–61, 193

L

labels 100–101
Landscape Printing icon 96
LaserWriter xvii
features that don't work with HyperCard 94
labels and 101
Print Stack command and 95
smoothing or flipping 94
Lasso (Tools menu) 79, 133–134
lassoing 76–77, 133–134. *See also* selecting
area that has no breaks 133
area without shrinking around black dots 133
copying selections 133
inverting lassoed areas, danger of 166
making multiple copies 134
moving selections 133
shapes (Select command) 164
Last command (Go menu) 21, 18, 120
layer(s)
button 148
front 60
moving buttons and fields one layer closer or farther 160–161
numbers, field 154
order of 60–61
tab 60–61
layouts, printing 103. *See also* printing; Print Report command
Lighten command (Paint menu) 167
limiting user levels 92
Line size 13, 138, 145, 176
Line tool (Tools menu) 79, 137
lines
cut off text 71
drawing 137. *See also* painting; tool(s) *or specific tool*
height 71
number of in fields 129
spacing 57
thickness of (Line Size command) 137, 176
viewing (Field Info command) 64–65, 153
linking
buttons 151–152
cards, link broken when renaming stacks 160
Home and stack 44
LinkTo 45, 151–152
Lock Text 64, 67
locking
fields 64
text 153

M

MacPaint 74, 81, 88
manual paper feed 96, 105
margins, wide (Field Info command) 64–65, 153
memory
requirements xvi
space in stacks (Stack Info command) 160
Menu bar 126, 115–116
menus. *See also* commands; keyboard commands *or specific menu*
converting to palettes 30
power keys and 75
tear-off 30, 125
Message box, displaying and hiding 123
Message command (Go menu) 123
messages 195–201
Date 197
DoMenu 197
Go 197–198
Hide 198
Open 198
Pop Card 199
Push Card 200
Show 200
Show Cards 200–201
Time 201
miniature cards, pasting 111
mistakes, correcting (Undo command) 106. *See also* cutting; deleting; editing; erasing; problems
modified dragging. *See* dragging; modifier keys
modifier keys 79–80
effects of (table) 192
mouse techniques 4, 10–11, 78

movement, constricting (Regular Polygon tool) 145
moving
between fields 59–60
between stacks and cards 18
buttons 34–35, 128, 160–161
cards 112, 156–157
fields 38, 57, 160–161
pictures 27, 132, 133
text 57, 67
through stacks 116–123
MultiFinder, HyperCard and xvi
multiple images, drawing 137, 139, 140, 142, 145, 181. *See also* Draw Multiple

N

names. *See also* renaming
background, changing 158
button 148
card 102, 156
field 62–63, 102
searching for 7
sorting 13. *See also* Sort
stack 85, 86, 159–160
New Background command (Objects menu) 163
New Button command, dialog box 1262
New Card command (Edit menu) 11–12, 41, 112–113
New Field command (Objects menu) 56, 129–130, 162
New Stack command (File menu) 86
Next command (Go menu) 119
numbers
button 148
card 156
card layer 154
field 60, 154
version, System file and Finder xvi

O

Object menu 146–163. *See also* commands *or specific command*
objects, list of 146
on-line help. *See* Help system
on-line information services xxi
Opaque command (Paint menu) 170
opaque
buttons 149
field style 63
pictures 77, 170
Open message 198
Open Stack command (File menu) 24, 25, 86–87
Options menu 172–183. *See also* commands *or specific command*
orientation, setting 94
outlines, tracing 168
Oval tool (Tools menu) 79, 141–142
overlapping text and fields 55

P

page
formats 96–97. *See also* printing
numbers, in headers 97, 105
size 94
Page Setup command (File menu) 94
painting 74–82, 124, 131–146, 163–183. *See also specific command or tool*
border 183
Brush and 135–136
Bucket and 140–141
centered on given point 75, 141, 180–181
circles (Oval tool) 141–142
cleaning screen 30
Curve tool and 142
Draw Centered command and 180–181
Draw Filled command and 178–180
Draw Multiple command and 181–182
Eraser and 136
filling pictures 140–141, 178–180
free-form shapes 142
from a central point 180
Line tool and 137
on User Preferences card 51
Oval tool and 141–142
paint spills 140–141
Paint text 54
Paint Text tool and 143–144
patterns 177, 182
Pencil and 135
Polygon tool and 145–146
power keys 75–77, 190–191
powers associated with 92
Rectangle tool and 138–139
Regular Polygon tool and 144–145
Rounded Rectangle tool and 139–140
Spray tool and 138
text in pictures (Paint Text tool) 143–144
tutorial 20–31
Paint menu 163–171. *See also* commands *or specific command*
Paint text. *See also* painting; Paint Text tool
active 114
can't use Find with 144
identifying 67
setting text properties for (Text Style command) 114
Paint Text tool (Tools menu) 66, 143–144
Text Style command and 114
Paint tools. *See also* tool(s) *or specific tool*
Clear command and 112
Cut command and 107
description of 20, 23, 124
double-clicking 78
dragging with modifier keys 78
pasting and 111
tips on 29–30
versus General tools 84
palettes 30, 125. *See also* painting
paper feed, manual 96, 105. *See also* Print Report
passwords 90–91
Paste Button command (Edit menu) 36, 111

Paste Card command (Edit menu) 111, 113
Paste command (Edit menu) 74, 111
Paste Field command (Edit menu) 39, 62
Paste Picture command (Edit menu) 27, 111
pasting
  buttons 36, 111
  cards 111, 112–113
  fields 39, 62, 107, 111
  MacPaint-compatible files 88
  pictures 27, 111
Patterns menu 29, 74, 182–183. *See also* commands; painting; patterns *or specific command*
  description of 182
  editing patterns 183
  short cut for 183
  tearing off 30
patterns, changing 165, 177–178, 183. *See also* filling; painting; pictures
Pencil (Tools menu) 29, 79, 135. *See also* painting; Paint tools
peripheral devices. *See* disk drives; digitizing cameras; printers; scanners
Pickup command (Paint menu) 76, 166
pictures. *See also* icons; painting; Paint tools; patterns *or specific topic*
  background 40–44, 115–116, 136, 165
  basic elements 74
  Brush Shape command and 176
  changing 124
    saving changes (Keep command) 171
    throwing away changes (Revert command) 171
  clearing (Clear command) 112
  copying 24–28, 108–109
  cutting (Cut command) 107
  darkening 167
  erasing (Eraser) 136
  filling (Draw Filled command) 178–180
  from Clipboard 74
  from Scrapbook 74
  Home card 6
  horizontal 170
  importing (Import Paint command) 81, 88
  lassoing 76–77
  lightening 167
  Line Size command and 176
  lining up elements in (Grid command) 172
  MacPaint 81
  menu commands 74
  moving 27
  multiple (Draw Multiple command) 181–182
  non-MacPaint 80
  opaque 77, 170
  pasting (Paste command) 111
  patterns, changing 165, 177–178, 183
  rotating 168–169
  selecting 76–77, 131–134, 165
  sharing among cards 74
  shrinking (Selection tool) 131
  special effects 80
  text as part of (Paint Text tool) 143–144
  tracing edges of 168
  transparent 171
  zooming in on (FatBits command) 173–174
points, text size and 70
Polygon Sides command (Options menu) 144, 178
Polygon tool 144–146, 178–180. *See also* Regular Polygon tool
Pop Card message 199
power keys 77, 174–175
  Paint 190–191
  table of 75, 175, 191
Power Keys command (Options menu) 75, 174–175. *See also* power keys
preset search paths 49
Prev command (Go menu) 119
Previous card button 5
Print Card command (File menu) 95
printers. *See* ImageWriter; LaserWriter
printing 95–105
  cards 95–96
  columns 101–102
  controlling printouts 99
  darker 96
  fast 96
  field names in columns 102
  field order 100
  format remembered 97, 105
  horizontal 94, 96
  labels 100–101
  manual paper feed 96, 105
  page formats 96–97
  page setup for 94
  reports 98–105. *See also* Print Report command
  rows 102–104
  slowed by smoothing or flipping 94
  stacks 95–97
Print Report command (File menu) 98–105
  Columns 101–102
  controlling printouts 99
  dialog box 98
  field combinations for 99
  Field printing order 100
  Format remembered 105
  Header 105
  Labels 100–101
  Manual paper feed 105
  Rows 102–104
Print Stack command (File menu) 95–97
  Cards printed per page 96
  dialog box 95
  Fast laser printing/darker printing 96
  Format remembered 97
  Headers 97
  Manual paper feed 96
  Page formats 96
private access, stacks and 89–90
problems, common
  changing card positions 156–157
  changing backgrounds 115, 158

creating buttons 115, 127
creating fields 57, 115, 130
deleting cards 156
deleting background 158
dragging pictures 132
modifying background pictures 158
Protect Stack command (File menu) 89–93
Can't delete 90
Private access 90
Set password button 90
viewing full File menu with 93
Push Card message 200

Q

Quick View icon 14
quitting HyperCard 105
quotation marks, Find command and 8, 120–121
Quotation stack, adding to 24, 28

R

Recent command (Go menu) 15–17, 118–119
rectangle field style 63
Rectangle tool (Tools menu) 79, 138–139. *See also* Rounded Rectangle tool
rectangles 138–140
Regular Polygon tool 79, 144–145, 178. *See also* Polygon tool
removing. *See* cutting; deleting; editing; erasing
renaming. *See also* names
pictures 81
stacks 87, 159–160
reports, printing. *See* Print Report command
restoring last picture saved 171
restricting user levels 92
Revert command (Paint menu) 171
reviewing cards. *See* Recent
Rotate Left command (Paint menu) 168
Rotate Right command (Paint menu) 169
rotating shapes (Regular Polygon tool) 145
Rounded Rectangle tool 79, 139–140. *See also* Rectangle tool
rows, printing 102–104. *See also* printing; Print Report command

S

Save a Copy command (File menu) 87
Save command, lack of 85
saving
background 88–89
card snapshots 89
changes (Quit HyperCard command) 105
patterns 178, 183
pictures 171
stacks 85, 86, 87
scanners 74
Scrapbook, pictures and 74
screen
losing part of rotated pictures on 168–169
removing cards from (Cut Card command) 113
snapshots of 81, 88–89
Script button (Field Info command) 152
scripting
on User Preferences card 51
powers associated with 92
scripts xxii, 51, 62–63, 92, 152
Button Info command and 152
changing field names in 63
scroll bar, vertical 63
scrolling field style 63
searches, electronic. *See* Help system
searching for text (Find command) 7–10, 120–122
search paths 49–50
Select All command (Paint menu) 131, 165
Select command (Paint menu) 164
selecting. *See also specific topic*
buttons 127–128
fields 130
pictures 76–77, 131–132, 133, 134, 166. *See also* lassoing
shapes 144, 178
text 126, 143
Selection tool 26, 131, 76–77
Send Farther command (Objects menu) 61, 161
sending a message (Message command) 123, 195–201
setting passwords 90–91
shadow field style 63
shapes. *See* commands; pictures *or specific topic*
short cuts
Draw Filled command 179
keyboard (table of) 192–193
opening stacks 87
Patterns menu 183
screen snapshots 89
selecting text 143
Show Cards message 200–201
Show Lines (Field Info command) 64–65
Show message 200
shrinking pictures (Selection tool) 131–132, 134
sizing buttons 128
snapshots
card 88–89
screen 81
software. *See* disks; system software
Sort icon 13–14
space, eliminating. *See* shrinking
spacing, line 57
special effects 80
Spray tool (Tools menu) 79, 138
stack(s). *See also* cards *or specific topic*
adding cards to (New Card command) 112–113
Address 7–9
arrangement of cards in 12–14
Art Ideas 24–25
authoring 31–46
backgrounds, unlimited number of 116

blank 86
Button Ideas 36
card position in 12–13
central. *See* Home
changing 87
changing card position in (Card Info command) 156–157
compacting (Compact Stack command) 89
creating 32–34, 86. *See also* authoring
customizing tutorial 19–46
definition of 4
deleting (Delete Stacks command) 93
deleting extra space in (Stack Info command) 160
directory of 6, 86
free space in (Stack Info command) 160
Home stack 48
linking Home to 44–46
location of 87, 203–204
moving through 15, 18, 116–123. *See also* Go menu
names of 1–5, 152, 159–160
opening (Open Stack command) 24, 86–87
printed summaries of (Print Report command) 98–105
printing (Print Stack command) 95–97
protecting (Protect Stack command) 52, 89–93
Quotation 24
removing cards from (Cut Card command) 113
renaming 159–160
retrieving (Recent command) 118–119
saving 85, 86, 87
search path for 49, 160
searching for text in (Find command) 120–122
sorting 13–14. *See also* Sort button
viewing 13
Stack icon 4
Stack Info command (Objects menu) 159–160
description of 159
dialog box 159
Free in Stack 160
Stack name 159–160
Where 160
Stacks disk. *See* HyperCard & Stacks disk
Stackware, definition and sources of xxi. *See also* Help system
starting up 2–3
Startup disk. *See* HyperCard Startup disk
startup files xvii
stretching picture selections 132, 134
style
button 149
field 63–64
text 69, 114
System file, version number of xvi
system software xvi–xvii

T

Tab key 11, 59–61, 193
tab order 60–61
tear-off menus 30
telephone numbers 7, 11. *See also* Address stack
text 65–71
alignment of 69–70, 114
Browse tool and 126
changing 10–11, 68–71
copying 67, 109
default attributes 70, 144
editing 65–66, 124, 126, 190
entering 66–67, 126, 143
finding 7-10, 120-122
fields and 54–65, 129–131. *See also* field(s); Field tool
fonts, changing 69, 153
height 70–71
hidden, viewing 67
kinds of 54
lines cut off 71
locking 64, 67, 153
moving 67
outside a field 67
overlapping 55
Paint 54,67, 114
pasting (Paste command) 107, 111
properties of 68–71
regular 65–71
searching for (Find command) 7–10, 120–122
selected 66
selecting 126, 143
Show Lines 64–65
size 70
style 69
typing 54
uneditable 67
Wide Margins 64–65
wrapping 58
Text Style command (Edit menu) 68–71, 114
3.5-inch disks, starting up from 2–3
time in headers 105
Time message 201
To Do card 32–33
tool(s)
Browse 4, 18, 54, 59, 65–66, 117, 128
Brush 135–136
Bucket 140–141
Button 34–35, 126, 128
Curve 142
Eraser 136
Field 37, 56–62, 67, 129
General. *See* General tools *or specific tool*
Lasso 133–134
Line 137
menu bar changes and 126
modifying. *See* Power Keys
names of 124
Oval 141–142
Paint. *See* Paint tools *or specific tool*
Paint Text 66, 143–144
Pencil 135
Polygon 145–146
Rectangle 138–139
Regular Polygon 144–145
Rounded Rectangle 139–140
selecting 125
Selection 26, 76–77, 131
Spray 138

switching, Paint text and 114
Tools menu. *See also* General tools; Paint tools; tool(s) *or specific tool*
description of 124–126
tearing off 30
Tools palette, movable 125, 182. *See also* tool(s); painting
Trace Edges command (Paint menu) 168
Transparent command (Paint menu) 171
transparent
buttons 149
fields 63, 162
pictures 77, 171
tutorials 2–46
adding a card 11–12
Address stack 7–9
arranging cards in stacks 12–14
authoring 31–46
browsing 3–5
changing text 10–11
getting started 2–3
Help stack 14–15
Home 6–7
limiting 44–46
painting 20–31
Recent 15–17
searching 7–9
Typing level 22. *See also* User Preferences card; user levels
typing text. *See* entering text; text

U

Undo command (Edit menu) 26, 106
user groups xxii
user levels 22–23, 50–52
changing 31
limiting 92
powers associated with 92
setting 50–52
User Preferences card 48, 50–52, 85

V

version numbers, System file and Finder xvi
vertical pictures 169

W, X, Y

"Where is?" dialog box 49
Wide Margins 64–65
wrapping text 58, 101, 102

Z

zooming in on pictures. *See* FatBits command

THE APPLE PUBLISHING SYSTEM

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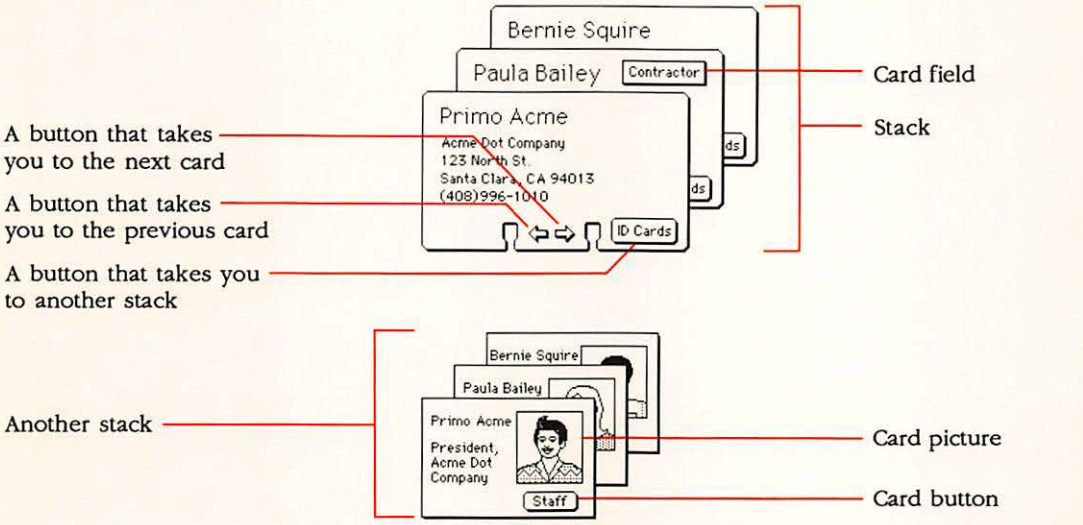
HyperCard® Quick Reference Card

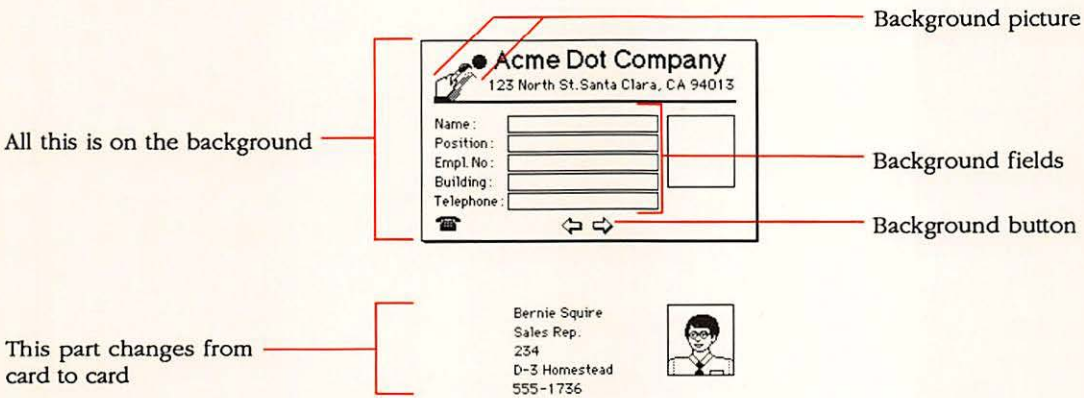
User preference levels

Browsing	Short File and Edit menus, plus the Go menu. Use of the Browse tool.
Typing	Same as Browsing, plus ability to edit text in existing fields.
Painting	Same as Typing, but with full File and Edit menus and use of Tools menu (plus Paint, Options, and Pattern menus when a Paint tool is selected). Use of all Paint tools (but not Button and Field tools), plus Power Keys option.
Authoring	Same as Painting, plus Objects menu. Use of Button and Field tools.
Scripting	Same as Authoring, plus ability to type into Message box while it's hidden (if proper option checked), and ability to write and edit scripts.

Your own notes

How HyperCard works: An overview





Effects of modified dragging

Tool	With Command key	With Option key
Button	Create button	Copy button
Field	Create field	Copy field
Selection	Select tightly	Copy selection
Lasso	Lasso everything	Copy selection
Line	No effect	Draw with pattern
Eraser	Erase white	No effect
Pencil	Get/leave FatBits	No effect
Rectangle	No effect	Patterned border
Curve	No effect	Patterned border
Brush	Erase what you paint over	No effect
Spray	Erase what you spray over	No effect
Rounded Rectangle	No effect	Patterned border
Polygon	No effect	Draw with pattern
Oval	No effect	Patterned border
Regular polygon	No effect	Patterned border

Tool	With Shift key
Button	Move button horizontal or vertical
Field	Move field horizontal or vertical
Selection	Move selection horizontal or vertical
Lasso	Move selection horizontal or vertical
Line	Draw at 15° angles
Eraser	Erase straight horizontal or vertical
Pencil	Draw straight horizontal or vertical
Rectangle	Draw square
Curve	No effect
Brush	Paint straight horizontal or vertical
Spray	Spray straight horizontal or vertical
Rounded Rectangle	Draw square with round corners
Polygon	Draw at 15° angles
Oval	Draw circle
Regular polygon	Rotate in 15° increments

Browsing from the keyboard

Destination	Keyboard short cut
Help	Command-?
Home	Command-H
First card in stack	Command-1 or Command–Left Arrow
Previous card in stack	Command-2 or Left Arrow
Next card in stack	Command-3 or Right Arrow
Last card in stack	Command-4 or Command–Right Arrow
Retrace through cards viewed	Tilde (~), Esc, or Down Arrow
Forward through retraced cards	Up Arrow
Record of cards recently seen	Command-R
Select Browse tool	Command-Tab
Store current card's location for quick return	Command–Down Arrow (Many locations can be stored)
Return to stored location (last in–first out order)	Command–Up Arrow
Next field on card	Tab

Miscellaneous keyboard short cuts

Key or combination	Effect
Command-Period	Cancel current action (like printing)
Command–Space bar	Hide and show menu bar
Command-Tab	Select Browse tool
Command-Tilde (~)	Go to most recent card displayed (Paint tool selected)
Command-Shift-V	Paste miniature card image (with card on Clipboard)
Command–Down Arrow	Store current card's location for quick return (you can have many locations stored)
Command–Up Arrow	Return to stored location (last in–first out order)
Option-D	Show card picture (with Paint tool)
Option-O	Show opaque areas (with Paint tool)
Option-Tab	Toggle Tools palette
Tilde (~)	Same as Back command (General tool selected); undo most recent action (Paint tool selected)
Down Arrow	Same as Back command (any tool selected)
Up Arrow	Come forward through reviewed cards
Tab	Toggle Patterns palette (Paint tool selected); Advance insertion point to next background field (Browse tool selected)

Holding down the Command key before and as you drag through the File menu shows the full file menu, even if Browsing or Typing is clicked on the User Preferences card in the Home stack and/or in a stack's Protect Stack dialog.

Text editing

Function	Keyboard short cut
Font, next in system	Command-Shift->
Font, previous in system	Command-Shift-<
Text style dialog box	Command-T
Space, less between lines	Command-Option-<
Space, more between lines	Command-Option->
Text size, larger	Command->
Text size, smaller	Command-<

Power keys available when using Paint tools

Command	Key	Menu
Black pattern	B	Patterns
Darken	D	Paint
Draw Centered (toggle)	C	Options
Draw Multiple (toggle)	M	Options
Fill	F	Paint
Flip Horizontal	H	Paint
Flip Vertical	V	Paint
Grid (toggle)	G	Options
Invert	I	Paint
Lighten	L	Paint
Line size	1–4, 6, 8	Options
Opaque	O	Paint
Pickup	P	Paint
Revert	R	Paint
Select	S	Paint
Select All	A	Paint
Trace Edges	E	Paint
Transparent	T	Paint
White pattern	W	Patterns
Rotate Left	[	Paint
Rotate Right	]	Paint

Keyboard equivalents by command

Key	Command	Menu
Background	Command-B	Edit
Bring Closer	Command-plus	Objects
Copy	Command-C	Edit
Cut	Command-X	Edit
Find	Command-F	Go
First	Command-1	Go
Help	Command-?	Go
Home	Command-H	Go
Keep	Command-K	Paint
Last	Command-4	Go
Message	Command-M	Go
New Card	Command-N	Edit
Next	Command-3	Go
Open Stack	Command-O	File
Paste	Command-V	Edit
Prev	Command-2	Go
Print Card	Command-P	File
Quit HyperCard	Command-Q	File
Recent	Command-R	Go
Select	Command-S	Paint
Select All	Command-A	Paint
Send Farther	Command-minus	Objects
Text Style	Command-T	Edit
Undo	Command-Z	Edit

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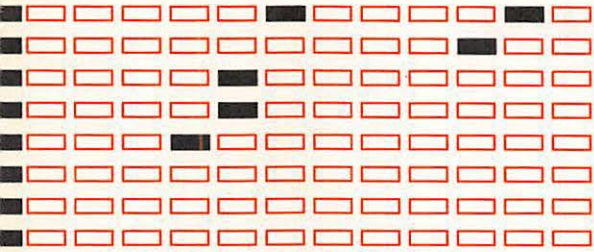
☐ Would you like to tell Apple what you think about this product? After you have had an opportunity to use this product, we would like to hear from you. You can help us to improve our products by responding to the questionnaire below and marking the appropriate boxes on the card at the right with a **#2 lead pencil**. If you have more than one response to a question, mark all the boxes that apply. Please detach the card and mail it to Apple. Include additional pages of comments if you wish.

1. How would you rate the HyperCard software overall? (**1**=poor. . .**6**=excellent)
2. How long have you used HyperCard? (**1**=less than 1 month, **2**=2–6 months, **3**=over 6 months)
3. How did you acquire HyperCard? (**1**=packaged with computer, **2**=purchased separately)
4. Where did you purchase HyperCard? (**1**=dealer, **2**=corporate purchase, **3**=education purchase, **4**=university, **5**=government purchase, **6**=Certified Developer Program, **7**=other)
5. How much experience have you had with computers? (**1**=none. . .**6**=extensive)
6. Which Apple computer are you using with HyperCard? (**1**=Macintosh Plus, **2**=Macintosh SE, **3**=Macintosh II)
7. Where is HyperCard used most often? (**1**=work, **2**=home, **3**=school, **4**=other)
8. How often do you use HyperCard with your computer? (**1**=never. . .**6**=always)
9. At what level are you using HyperCard? (**1**=browsing, **2**=typing, **3**=painting, **4**=authoring, **5**=scripting)
10. At what level do you expect to use HyperCard eventually? (**1**=browsing, **2**=typing, **3**=painting, **4**=authoring, **5**=scripting)
11. How easy is HyperCard to use? (**1**=difficult. . .**6**=very easy)
12. How did you learn to use HyperCard? (**1**=*Hypercard User's Guide*, **2**=HyperCard Help Stacks, **3**=training class, **4**=friend, **5**=other)
13. Does HyperCard meet your expectations? (**1**=not at all. . .**6**=exceeds expectations)
14. How would you rate the *HyperCard User's Guide* overall? (**1**=poor. . .**6**=excellent)
15. How would you rate the HyperCard Help Stacks overall? (**1**=poor. . .**6**=excellent)
16. Please describe any errors or inconsistencies you may have encountered. (Page numbers would be helpful.)
17. What suggestions do you have for improving HyperCard?

Thanks for your time and effort.

030-3218-A

...HyperCard



Please Do Not Mark Above This Line

1. 1 2 3 4 5 6

2. 1 2 3

3. 1 2

4. 1 2 3 4 5 6 7

5. 1 2 3 4 5 6

6. 1 2 3

7. 1 2 3 4

8. 1 2 3 4 5 6

9. 1 2 3 4 5

10. 1 2 3 4 5

11. 1 2 3 4 5 6

12. 1 2 3 4 5

13. 1 2 3 4 5 6

14. 1 2 3 4 5 6

15. 1 2 3 4 5 6

16. _____

_____

17. _____

_____

Return Address: _____

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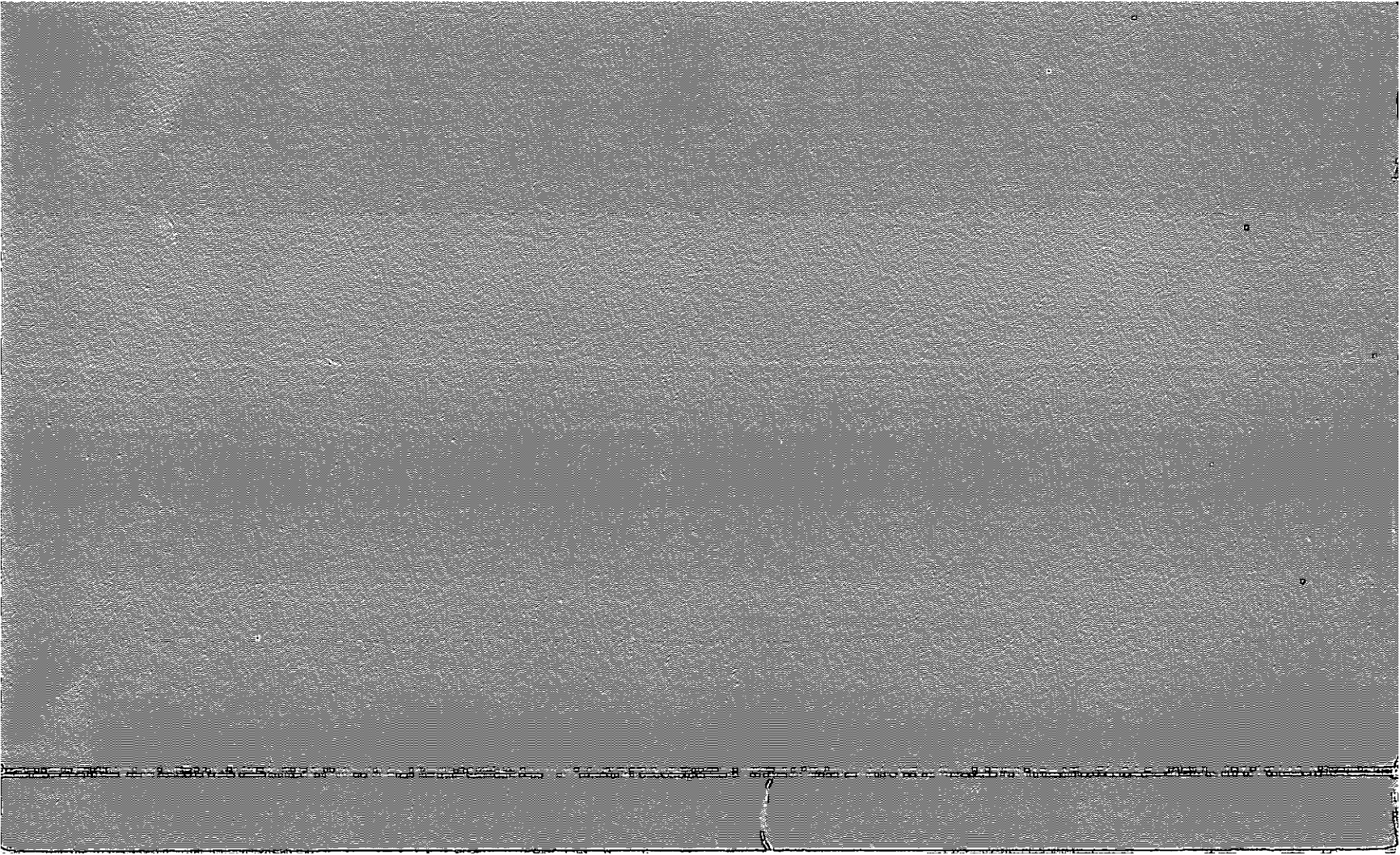

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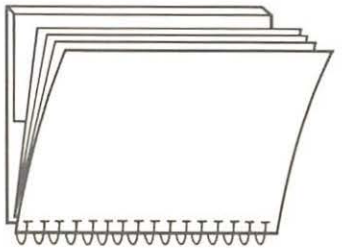
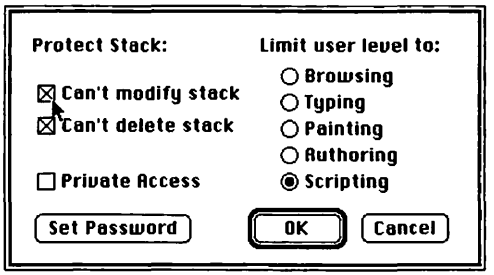


Tuck end flap inside back cover when using manual.

Macintosh® HyperCard™ Version 1.2 Update



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HyperCard 1.2 has a number of features and options (and one restriction) too new to be included in the user's guide:

- HyperCard running under MultiFinder™ needs the Application Memory Size in its Get Info box set to at least 750K.
- The Text Arrows option lets you use the arrow keys when you edit text in fields or in the Message box.
- The Find Whole option lets you search for a specific word or phrase anywhere in a stack.
- Stacks can be write-protected.
- HyperCard works on file servers.
- When Auto Tab is checked in the Field Info dialog box of a nonscrolling field, pressing Return with the insertion point in the last line of that field moves the insertion point to the next field on that card.
- The short cuts for increasing and decreasing the amount of space between lines in a text field have been changed.

Minimum memory setting

HyperCard works well with MultiFinder when you leave the Application Memory Size in its Get Info box set to 1000K (the default setting). If you set Application Memory Size to less than 750K (the minimum setting), scripts using Paint tools won't work, and you won't be able to paste graphics. Other less predictable consequences might also occur.

Text Arrows

HyperCard's Text Arrows option lets you use the arrow keys when you edit text fields or the Message box. When you click any user level button except Browsing on the User Preferences card, a check box labeled Text Arrows appears. (See Figure 1.)

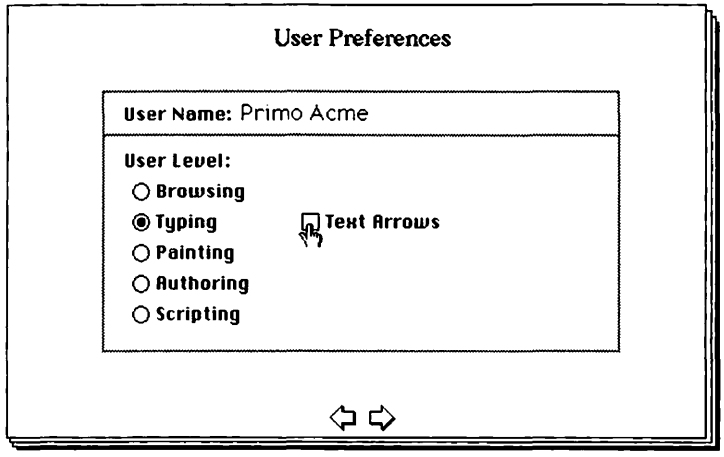
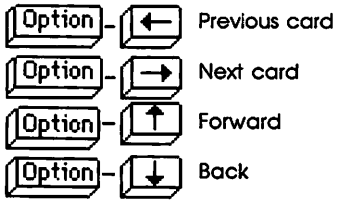


Figure 1
Text Arrows box



Use the Option key with arrows to move through cards when Text Arrows is checked

With Text Arrows checked, the Left Arrow and Right Arrow keys move the insertion point to the left and right over text in a field or in the Message box; the Up Arrow and Down Arrow keys move up and down through lines in a field.

To move to the previous or next card, or to go back and forward through cards you've seen, hold down the Option key as you press the appropriate arrow. (With Text Arrows unchecked, you don't need to hold down the Option key.)

For details on the User Preference card, see pages 22 and 50 of the user's guide. For more information on the actions of arrow keys with Text Arrows unchecked, see pages 116–120.

Find Whole

The Find Whole option (or Shift-Command-F) lets you search for a specific whole word or phrase (including spaces) anywhere in a stack. For HyperCard to find a match, all the characters must be in the same field on a card, and they must be in the same consecutive order as they appear between the quotation marks in the Message box:

```
Find Whole "Apple Computer"
```

The above example finds cards that have the phrase *Apple Computer* on them; it won't find *Apple Computers* or *This apple is a computer.* (The Find command without Whole would find all three cases as matches.)

Find Whole won't stop on cards that have only partial matches; for example,

```
Find Whole "Ed"
```

won't match *Edward.*

Find Whole pays no attention to case or to diacritical marks when it looks for matches: *apple Cømpüter, apple computer,* and *Apple Computer* are all seen as the same.

When you use the Find command without Whole, HyperCard looks for cards that contain everything between the quotation marks, even if the words appear in a different order or in different fields.

As with Find, you can use Find Whole to search in a specific background field. For details on this and other Find options and restrictions, see pages 120–122 in the user's guide.

Write-protected stacks

HyperCard stacks can be write-protected. You can look at a write-protected stack and make copies of all or part of it, but you can't change it.

You can recognize a write-protected stack because a padlock appears to the right of the rightmost menu title on the menu bar, and you can't use certain menu items. Figure 2 shows an example.

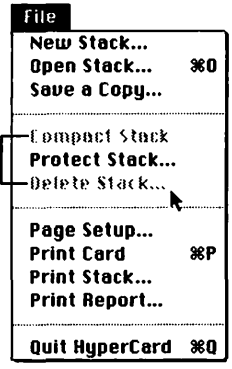


Figure 2
File menu of a write-protected stack

Stacks are write-protected in a number of ways:

- The stack is on a CD-ROM.
- The stack is on a file server in a folder whose access privileges are set to Read Only.
- The Locked box is checked in the stack's Get Info box in the Finder.
- The stack is on a locked 3.5-inch disk.
- Can't Modify Stack is checked in the stack's Protect Stack dialog box. (See Figure 3.)

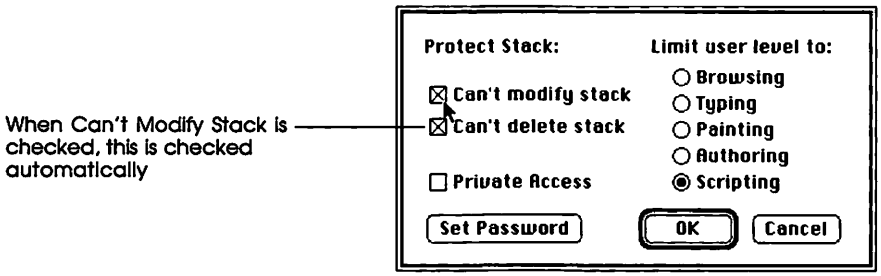


Figure 3
New Protect Stack dialog box

When the stack is on a write-protected medium (a locked disk, a CD-ROM, a locked folder on a file server), HyperCard automatically puts a check into the Can't Modify Stack option; you can't undo it.

To make permanent changes to such a stack, you'll first have to remove the write-protection. In many cases, copying a stack to an unlocked disk makes the stack modifiable. However, if a user has checked Can't Modify Stack in the stack's Protect Stack dialog box, or if the Locked box is checked in the stack's Get Info box in the Finder, you'll have to uncheck the proper boxes after copying before you can make stack changes.

Warning When a stack is locked, you might be able to type into a field or paint a picture on a card or background; but the changes disappear as soon as you leave the current card.

HyperCard on a file server

Only a single user has access to a stack on a file server when the stack is unlocked. Any number of users have access to a stack when the stack is locked (but no one can make changes to it).

If any one of the following conditions are true, a stack is considered locked:

- The stack is on a CD-ROM.
- The stack is on a file server in a folder whose access privileges are set to Read Only.
- The Locked box is checked in the stack's Get Info box in the Finder.
- The stack is on a locked 3.5-inch disk.

Important Checking Can't Modify Stack in the stack's Protect Stack dialog box is not sufficient to make the stack available to more than one user.

Auto Tab

When Auto Tab is checked in the Field Info dialog box of a nonscrolling field, pressing Return with the insertion point in the last line of that field moves the insertion point to the next field on that card.

(Normal tabbing order is followed: if the field you're leaving is a card field, the insertion point moves to the next higher-numbered card field or to the lowest-numbered background field if no higher-numbered card field exists; if the field you're leaving is a background field, the insertion point moves to the next higher-numbered background field or to the lowest-numbered card field if no higher-numbered background field exists.)

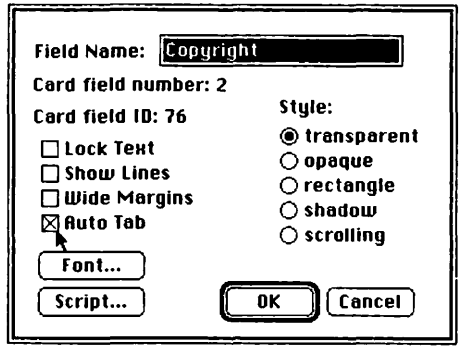


Figure 4
New Field Info dialog box

This feature can be useful, for example, when you're creating a form: when the person filling out the form completes a field and the insertion point is in the last line, all he or she needs to do to move to the next field is press Return. (See page 60 in the user's guide for a discussion of tabbing and field order.)

Line spacing short cut changed

In earlier versions of HyperCard you could press Command-Option-> and Command-Option-< to increase or decrease the space between lines of text.

In version 1.2, you must add the Shift key to the formula: press Command-Option-*Shift* plus either > or < to increase or decrease spacing. (Be sure you have the proper field selected first.)

Additions to HyperTalk

Some new features have been added to the HyperTalk™ scripting language that are not documented in the on-line Help system. See the READ ME FIRST stack for details.