Getting Started
With HyperCard® IIGS®

Getting Started

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About This Book

HyperCard® IIGS® is a software package that lets you control the way you use text, graphics, and sound on your Apple IIGS® computer. This book shows you how to start using HyperCard.

The first part of the book teaches you how to install HyperCard and explore the files that come with it. The last few chapters show you how to create "smart" documents called *stacks*. Stacks can do many of the things ordinary Apple IIGS programs can do, and more, because you can decide for yourself how you want your stacks to work—without knowing a word of programming.

By the time you finish this book, you'll be ready to start using HyperCard in ways no one else may ever have imagined.

What you need to know to use this book

This book is for people who have never used HyperCard before. However, the book does assume that you know how to perform certain basic tasks with your Apple IIGS computer. You should know how to

- Use the mouse and keyboard

- Choose commands from a menu

- Use keyboard shortcuts

- Copy files and disks

- Open disks, folders, applications, and documents

- Perform simple editing tasks, including selecting, copying, and pasting text

- Use the directory dialog box to locate files

If you need to learn more about these basic tasks, consult the books and disks that came with your Apple IIGS.

Different people learn in different ways

HyperCard comes with several books and disks designed to make you productive quickly and help you learn the software thoroughly. Depending on how comfortable you feel working with the Apple IIGS, you may want to skip all the learning materials or read every single word. Fortunately, the materials are designed to handle the needs of a wide variety of users.

The beginner

If you don't yet have much experience using Apple IIGS computers, this book was written with you in mind. As long as you know the basic Apple IIGS skills described in the previous section, you should do fine. Follow this plan:

- Read this book, starting with Chapter 1. The first five chapters contain the most important information for beginners.

- You may want to skip the "Experts Only" sections at the ends of most of the chapters.

- Explore the sample stacks.

- If you have questions that aren't answered by this book, consult the *HyperCard IIGS Reference.*

The confident rookie

If you've never used HyperCard before but are comfortable using the Apple IIGS, you can zoom through this book by following this plan:

- Browse through Chapter 1, "An Optional Introduction."

- Speed through the installation procedures in Chapter 2, reading just the boldface steps.

- Continue reading the rest of the chapters in this book, scanning the introductory material, following the boldface steps, and looking at the pictures.

- Try the "Experts Only" sections at the ends of some of the chapters.

The impatient but experienced Apple IIGS user

If you're already expert in several Apple IIGS application programs and you would prefer to learn by exploring on your own, try this strategy:

- Play with the sample stacks. If you feel truly adventurous, set your user level to the maximum and start dissecting the stacks.

- If you need help, consult the HyperCard Tour stack (described in Chapter 3), the HyperCard Help stack (described in Chapter 4), and the *HyperCard IIGS Reference*.

How to use this book

You should use this book while you're sitting in front of your Apple IIGS. It's a manual for the playful.

Every chapter except the first and the last includes simple exercises made up of numbered steps. Each step consists of a short instruction in boldface type, followed (usually) by further explanation in plain type. Depending on your level of expertise with the Apple IIGS, you may find that you can speed through some or all of the chapters by reading just the boldface steps and looking at the pictures. Of course, you can stop and read the more detailed explanations in plain type whenever you need to.

Most chapters end with an "Experts Only" section, which contains experiments designed to teach you more about the techniques you've learned in that chapter. The "Experts Only" section is optional; feel free to skip it if you wish.

Each chapter builds on what you've learned in previous chapters, so it's important that you start with Chapter 1 (or Chapter 2) and work through the book sequentially:

- Chapter 1, "An Optional Introduction," reveals the secrets of HyperCard: what it is, what it does, and how it looks.

- Chapter 2, "Installing HyperCard," tells you how to install HyperCard by using the Installer program.

- Chapter 3, "Browsing Through Stacks," introduces HyperCard navigation techniques, showing you how to move around in the stacks that come with HyperCard.

- Chapter 4, "More Basics," discusses the other basic HyperCard skills, from typing to getting help.

- Chapter 5, "Exploring," shows you useful techniques for exploring HyperCard stacks.

- Chapter 6, "Tinkering With Stacks," shows you how stacks are put together and how to modify them.

- Chapter 7, "Creating New Stacks," shows you how to create new stacks.

- Chapter 8, "Onward," offers suggestions for further experimentation and ideas for adding power and pizzazz to your stacks.

- The Appendix, "Using HyperCard on a Network," describes special considerations for people who install HyperCard on a file server instead of on their own hard disk.

Terms appear in *italics* in this book when they're first defined. These words are also defined in the glossary.

About the other learning materials

In addition to this book, the following learning materials are included in the HyperCard package:

HyperCard IIGS Reference: A book you can consult to answer questions about HyperCard as they come up.
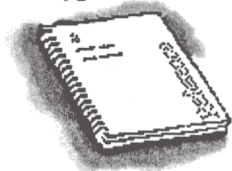
HyperCard Tour: A stack that introduces the basic HyperCard concepts by showing you what HyperCard can do. (Chapter 3 of this book tells you how to use the tour.)
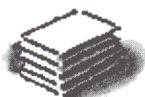
HyperCard IIGS Help: A stack that answers your questions while you're using HyperCard. (Chapter 4 of this book shows you how to use the Help stack.)
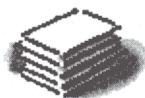
HyperTalk Beginner's Guide: A book that teaches you how to use HyperCard's own programming language by helping you create a new stack, one step at a time.

HyperTalk Help: A stack that provides easy access to information about HyperTalk® for people who use HyperCard's programming language.
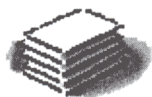
An Optional Introduction

This chapter introduces HyperCard® IIGS®. For many people, spending a few minutes now learning what HyperCard is and how it's used will save a lot of confusion later.

However, if you can't wait to get your hand on the mouse, you can immediately skip to Chapter 2, "Installing HyperCard." (If you're already skilled with the Apple IIGS® computer and you want to go as quickly as you can, read only the boldface, numbered steps, starting in Chapter 2.)

△ **Important:** For this chapter only, there's no need to use your Apple IIGS. You'll begin to use the computer in the next chapter. △

Question: Which one of these people just discovered HyperCard?

Grim   Grim   Grim   Curious and excited
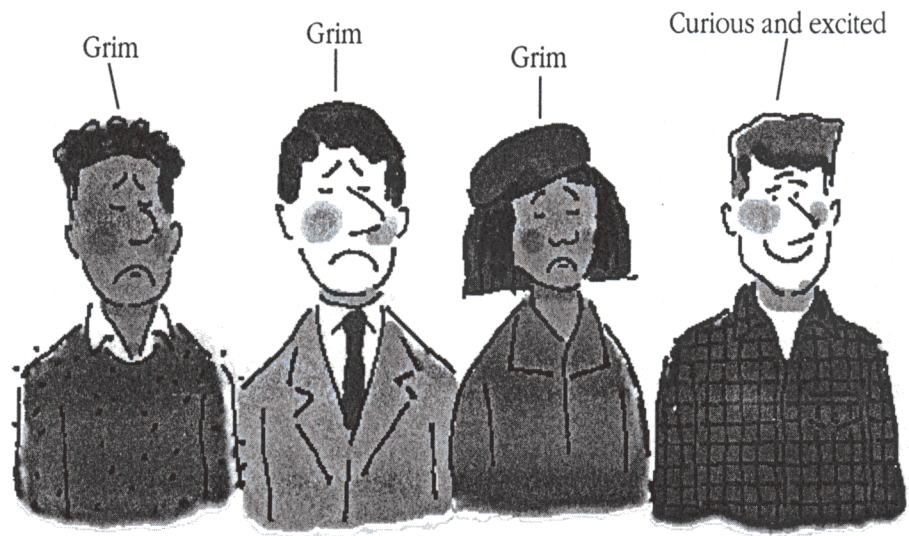
Answer: The curious, excited one on the right. He's excited because HyperCard sounds like it can do almost anything. He's curious because—like most people who've never used HyperCard—he's not really sure what "almost anything" means.

Chapter 1: An Optional Introduction

What is HyperCard?

Most software is inspired by something outside the computer world. For instance, painting programs were inspired by the artist's tools, and word processors were inspired by the typewriter. But what about HyperCard?

Artist's tools
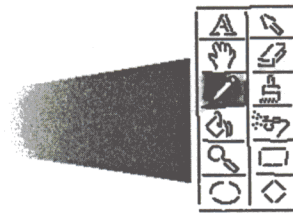
Painting program

Typewriter
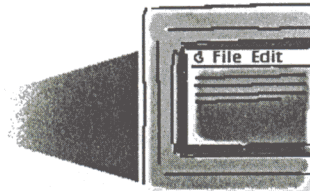
Word processor

What?
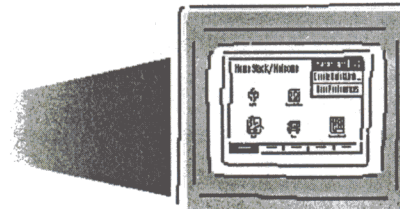
HyperCard

HyperCard can do what index cards do

Though you might not guess it at first, HyperCard is an electronic descendant of the scratch pad, the index card, and the circular card file.
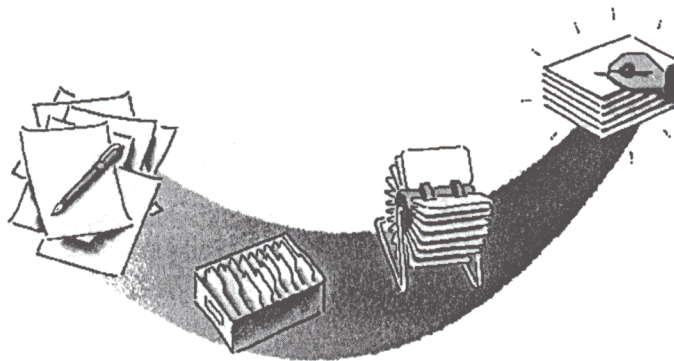
You can think of HyperCard as an electronic stack of index cards. Every HyperCard file is called a *stack,* and every HyperCard stack consists of one or more electronic *cards.* You use many HyperCard stacks just as you would use stacks of index cards—to catalog a music collection, preserve your favorite recipes, or record addresses and phone numbers. Later you'll learn that HyperCard stacks can do things no one would ever dream of doing with paper index cards—like figure your taxes or control a mainframe computer.

But even when HyperCard stacks are used for the same purposes as ordinary index cards, they can do much more than the paper versions ever could. For example, many stacks are designed to look like preprinted forms. In addition to allowing you to fill in the blanks, the stacks can check to make sure you've filled in the information correctly. Better yet, if the forms require some math, HyperCard can do the calculations for you. Imagine an expense report that figured its own totals or a recipe card that could tell you the proportions for a triple batch of chocolate chip cookies.

Chapter 1: An Optional Introduction

Crabapple Jelly

8 lb. crab apples
Sugar
Water

Wash apples, remove stems and blossom tips. Cut apples in halves. Add water to barely cover and cook until soft. Crush lightly, put into a jelly bag and let drip overnight. Next day, measure juice and boil rapidly for 2 to 3 min. Add 3/4 cup of sugar for each cup of juice. Stir until the sugar is completely dissolved, then boil rapidly for 15 minutes. Remove from heat, skim, pour into hot, sterilized glasses. Seal.

How Many People?

HyperCard can do much more

Because HyperCard is on a computer, you can make its cards do all kinds of things that aren't possible with real index cards. HyperCard's cards can contain games, calculators, and animation. With some extra equipment, HyperCard's cards can also control other pieces of equipment, including other computers. For example, you can use your Apple IIGS to control a multimedia show on a laser disc player.
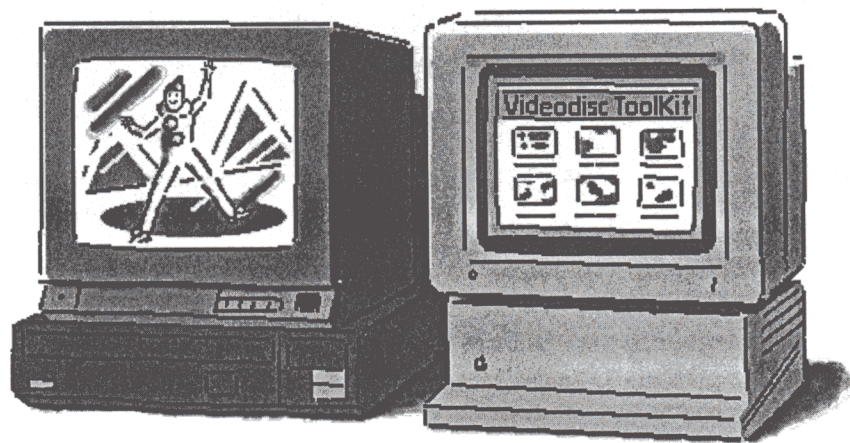
HyperCard for the casual and the ambitious

Because people have different needs and abilities, HyperCard allows you to use it in the manner most appropriate to your own situation. You'll probably start using HyperCard by exploring stacks created by other people. Then, if you like, you can learn how to make your own.

Using stacks

As long as you know how to use the mouse, you can start exploring stacks a minute after you install HyperCard. Spend an hour or two with the first few chapters in this book and you'll learn the basic HyperCard skills, ranging from finding a particular card in an enormous stack to using HyperCard's sophisticated stack navigation tools.

Making your own stacks

If you can't find a stack that does what you want, you can create your own. The last half of this book brings you to the point where you can create your own stacks for simple reports or catalogs. You might think you'd need to be a programmer to create your own stacks, but all you need is a sense of design and a few technical skills. You can create an amazing variety of stacks by dragging components with the mouse and using HyperCard's Paint tools.

If you have even greater ambitions, HyperCard has still more to offer. You can learn HyperTalk®, a programming language that looks a lot like English, to create novel stacks of your own.

But if you don't like the idea of learning how to program, don't worry—you can use HyperCard well without knowing a single word of HyperTalk. This book won't require you to learn anything about programming or HyperTalk. (However, if you do want to learn more about HyperTalk after you've finished this book, you can read the *HyperTalk Beginner's Guide.*)

You already know a lot about HyperCard

Because HyperCard gives you so much flexibility—such as the power to create your own software by creating new stacks—you may think it's mysterious or difficult to learn. The truth is that if you've used the Apple IIGS before, you already know much of what you need to use HyperCard. Here are some of the ways HyperCard resembles other software:

Starts in a typical way

HyperCardIIGS —————— Double-clicking the icon opens the program.

Typical menu bar

🍎 **File Edit**

Many familiar commands

File

New Stack...	————— Creates new files
Open Stack...	⌘O
Save a Copy...	————— Opens existing files
Page Setup...	————— Sets the page style
Print Card	⌘P
Print...	
Quit HyperCard	⌘Q —— Quits the program
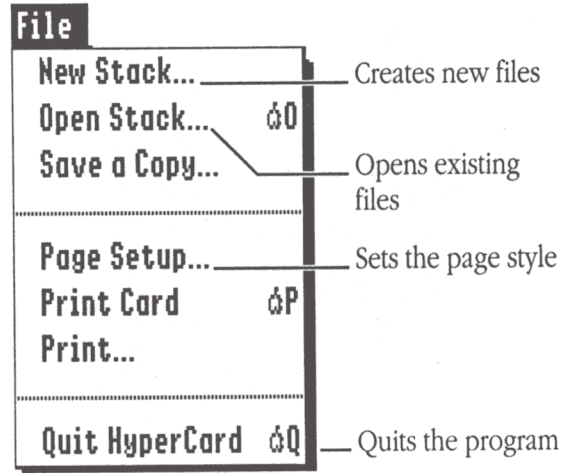
Standard editing techniques for text and paint

Edit

Undo	⌘Z
Cut Text	⌘X
Copy Text	⌘C — You can cut, copy, and paste in the usual manner.
Paste	⌘V
Clear Text	

You can use the same paint tools available in many other programs.

Chapter 1: An Optional Introduction

7
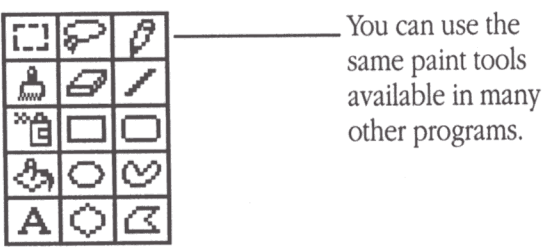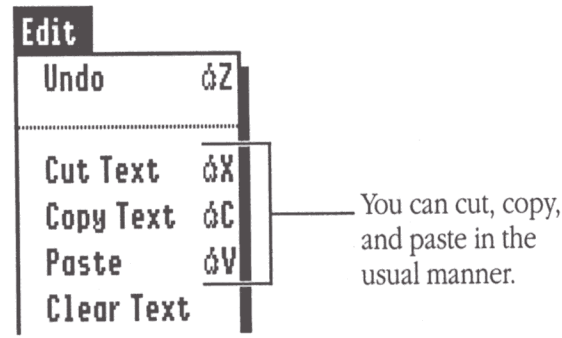
A few differences

While most of the techniques you use in HyperCard will seem familiar, some things are different:

No Save command

File

New Stack...
Open Stack...   ⌘O
Save a Copy... _____

Page Setup...
Print Card   ⌘P
Print...

Quit HyperCard ⌘Q
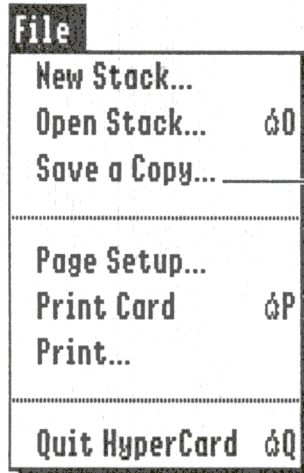
HyperCard saves your files for you automatically. You can put a copy of the file away for safekeeping under a different name by using the Save a Copy command.

Alternative method of opening files

Scripter's Tools   Art Ideas

Button Ideas   Icon Editor
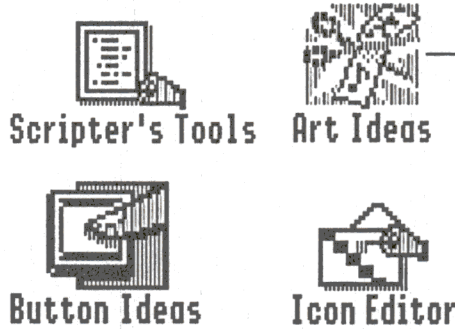
In addition to using the Open command, you can click buttons to open files.

Windows look different from many other Apple IIGs windows

 File Edit Go Tools Objects

White Pelican

White pelicans have long beaks shaped like scoops to help them catch wriggly, slippery fish. They hunt cooperatively, surrounding fish in the water.

When they hatch, pelicans have no feathers and need their parents to protect them from the sun.

In the summer, pelicans like the open water of marshes in the northern United States and southern Canada. They spend the winter in Florida, California, and Mexico.

Card 1 of 7

Windows have no scroll bars or title bars.

Chapter 1: An Optional Introduction

HyperCard in its own terms

So far in this chapter you've learned about HyperCard by comparing it to real-world index cards and to other programs. Here's a quick look at some of HyperCard's main parts and the terms it uses to describe them:

Each card may contain three elements:

Fields: You can type text in fields.

Paint: You can use standard paint tools to create graphics.

Buttons: You can click buttons to make things happen.

PN 456-A Sprocket

The 456-A sprocket is used primarily on bicycles-specifically on single-speed rear wheel types of 10-speed bicycles.

This type of sprocket is manufactured in over 20 different sizes for the bicycle industry.

Right nut and washer

Clip

Sprocket 456-A

Brake arm

Left nut and washer
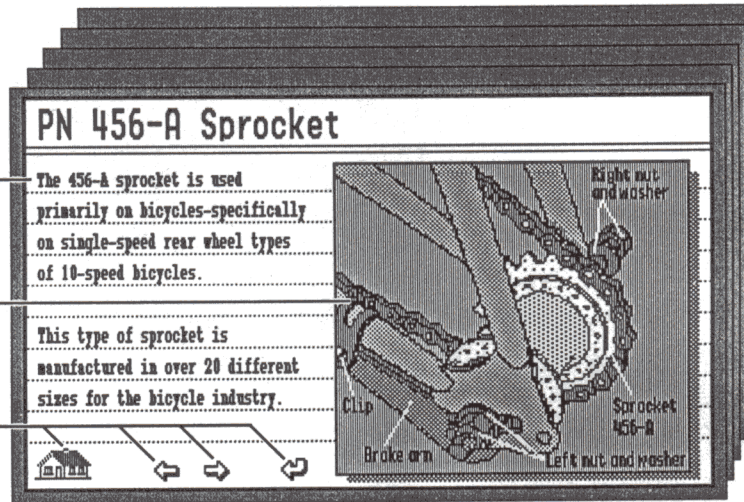
Installing HyperCard

Before you begin using HyperCard and doing the exercises in this book, you need to install the software.

△ **Important:** If you are using HyperCard on a network, skip this chapter and instead read the Appendix, "Using HyperCard on a Network." △

What you need to run HyperCard

HyperCard runs only on certain Apple IIGS computers. Make sure yours has all the features listed in the figure below:

At least 1
800K floppy
disk drive.

At least
1 megabyte
of RAM.

System software
version 5.0.3
or later.
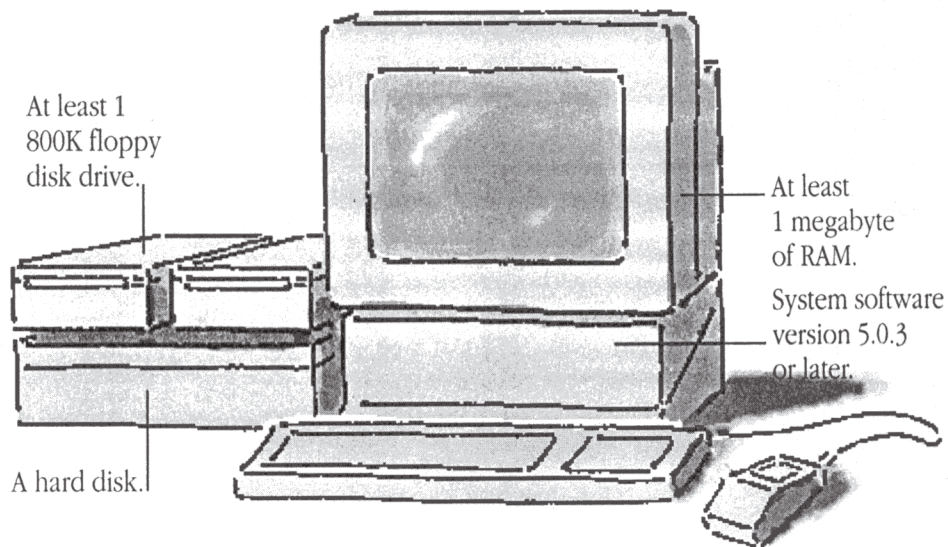
A hard disk.

❖ *Note:* You don't need the hard disk or the 800K disk drive if you run HyperCard on a network. See the Appendix for more information. ❖

If necessary, your authorized Apple dealer can help you add memory to your computer or upgrade your system software to a later version.

Installing HyperCard on a hard disk

To install HyperCard on your hard disk, you need to use the Installer program that's on the *HyperCard IIGS Installer and Tour* disk included in the HyperCard package. The Installer program copies the necessary files to your hard disk and places them in the appropriate folders.

Getting the disks ready

Before you begin, get all the necessary disks and lock them:

1. **Find the six original HyperCard disks.**

   The disks contain the program, help files, sample files, and the installer program. The disks are named:

   - *HyperCard IIGS Installer and Tour*
   - *HyperCard IIGS Program*
   - *HyperCard IIGS Help*
   - *HyperCard IIGS HyperTalk Help*
   - *HyperCard IIGS Stacks 1*
   - *HyperCard IIGS Stacks 2*

2. **Use your thumbnail or a ballpoint pen to lock each of the six disks.**

   Before you start copying files, make sure you lock your original disks so you don't accidentally change or delete any of the files on them. You can experiment with greater confidence if you know you can get your original files back from your locked disks.

You can lock the disk by sliding the plastic tab as shown in the illustration.

When you can see through the hole, the disk is locked.

Locked   Unlocked
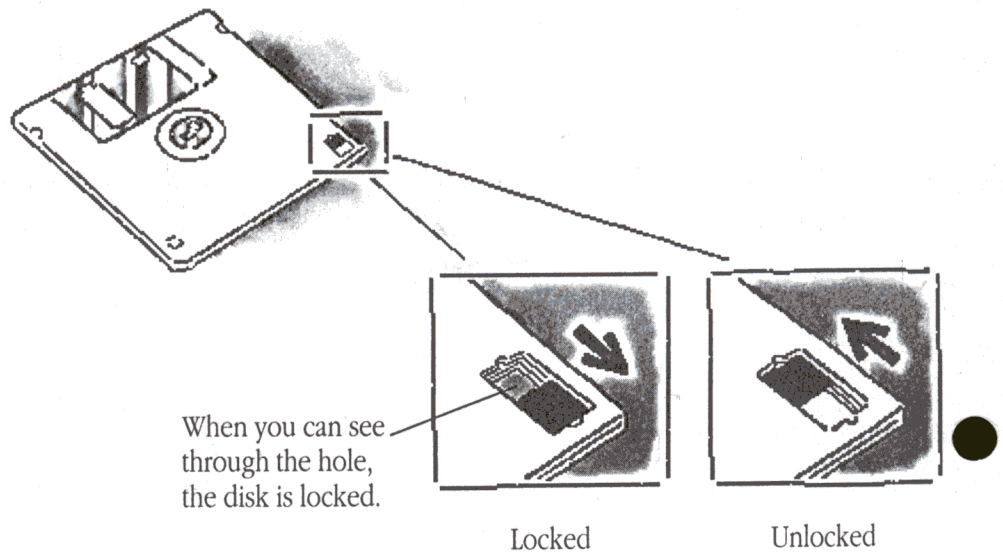
Using the Installer

In this section you'll use the Installer program to copy the HyperCard files to your hard disk.

Getting ready: Start up your Apple IIGS. Make sure you've installed system software version 5.0.3 or later.

△ **Important:** The Installer will not work properly and HyperCard will not run if you don't have system software version 5.0.3 or later. △

1. Insert the *HyperCard IIGS Installer and Tour* disk.

2. Double-click the Installer icon.

 —— Double-click this
icon to begin the
installation.

After a few moments, the Installer displays the HyperCard
Installer Script dialog box.

3. Click the Install button.

 —————— Click here.
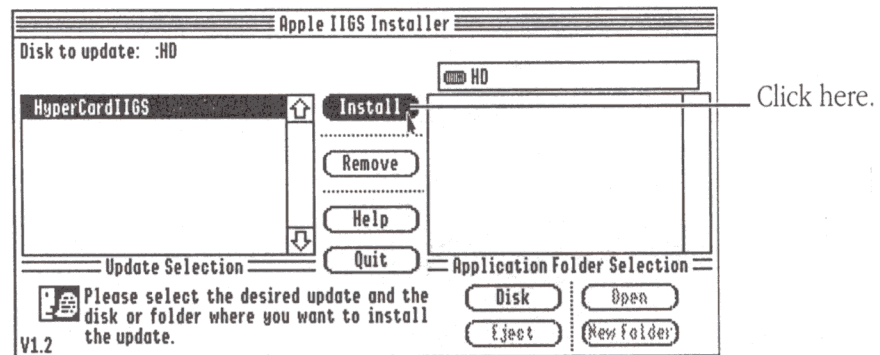
A dialog box tells you that the script installs all the HyperCard
files.

4. Click Perform This Update.

5. Insert disks as requested.

After you click Install, the Installer asks you to insert each of the
HyperCard disks in turn. For each disk change, eject the old disk
by pressing the eject button on your disk drive, insert the new
disk requested by the Installer program, and then click OK.

6. **When the Installer informs you the installation is complete, click OK to close the dialog box.**

7. **Finally, click Quit to exit from the Installer program.**

   You may see a message warning you that some system files have been changed and you need to restart your system. In that case, choose the Shut Down command from the Special menu, click Restart, and then click OK.

HyperCard is now installed on your hard disk in a folder called HyperCard.IIGS. The folder contains the following items:

- HyperCardIIGS, the program

- Home

- Tour

- Help, a folder containing two help files:

  - Help

  - HyperTalkHelp

- Stacks, a folder containing these files:

  - Addresses

  - ArtIdeas

  - Birds

  - ButtonIdeas

  - Calendar

  - IconEditor

  - PicturePuzzler

  - ScriptersTools

  - StoryBoard

Browsing Through Stacks

If you've already installed HyperCard according to the instructions in Chapter 2, you're ready to get going.

By the time you're finished with this chapter, you'll know how to start up and quit HyperCard and how to move from stack to stack and from card to card. In other words, you'll learn to *browse* through stacks.

△ **Important:** If you're in a hurry, try reading only the boldface, numbered steps. The plain text below these steps contains further explanation if you need it. △

Getting ready

The exercises in this book assume that no one has changed any of the HyperCard files since HyperCard was installed. If you've already made some changes and you need to keep them, rename the HyperCard folder and then repeat the installation procedure in Chapter 2. If you don't need to keep your changes, you can immediately go back to Chapter 2—the installation procedure will automatically erase the old HyperCard folder and all of its contents.

Starting up and taking the tour

The best way to learn HyperCard is to start using it. In this exercise you'll open HyperCard and explore the HyperCard Tour.

Getting ready: If you've already installed HyperCard according to the instructions in Chapter 2, you can start the exercise now, beginning with step 1. If not, go back to Chapter 2 and follow the installation instructions there.

1. **Open your hard disk (if it's not open already).**

   Double-click your hard disk's icon to open it.

2. **Open the HyperCard folder (if it's not open already).**

Double-click to open the folder.

HyperCard

(You may have to use the scroll bars to see it.)

3. **Open HyperCard.**

   Open HyperCard just as you would open any program: Find its icon and double-click it.

Chapter 3: Browsing Through Stacks

Double-click
here to open
HyperCard.

```
┌─────────────────────────────────────┐
│ ≡□≡        ≡ HyperCard ≡        ≡回回 │
│ 5 items       7473K used  13127K available │
│                                      │ ⇧
│         🏠          🔷              │
│      HyperCardIIGS    Home          │
│                                      │
│       📁        🔷        📁       │
│      Help        Tour     Stacks    │ ⇩
│ ◁ ▭▭▭▭▭▭▭▭▭▭▭▭▭▭▭▭▭▭▭▭▭▭ ▷ 回│
└─────────────────────────────────────┘
```
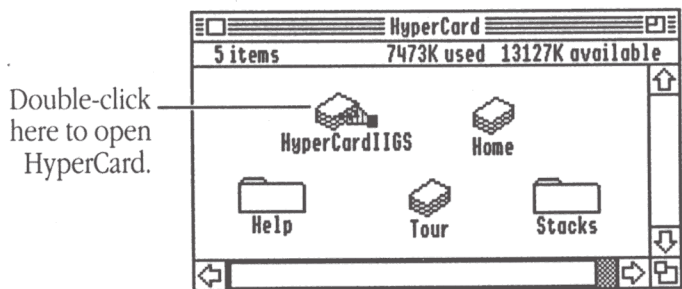
Once HyperCard is open, you're asked to enter your name, as
described in the next step.

4. Type your name and click the OK button.

```
┌───────────────────────────────────────┐
│ ┌───────────────────────────────────┐ │
│ │ Please enter your name:           │ │
│ │ ┌───────────────────────────────┐ │ │
│ │ │ Andrew F. Swartz│             │ │ │
│ │ └───────────────────────────────┘ │ │
│ │        ( ▋ OK ▋ )  ( Cancel )     │ │
│ └───────────────────────────────────┘ │
└───────────────────────────────────────┘
```

Type your name
here...
...then click OK.
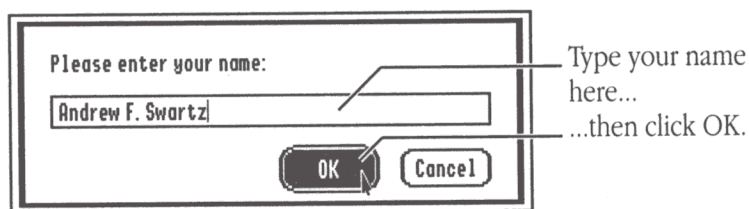
After you click OK, you see the first Home card, as shown in the
next step.

5. Open the HyperCard Tour by clicking its button.

Click this
button once.

```
┌──────────────────────────────────────────────────┐
│ Home Stack / Welcome    Andrew F. Swartz  HyperCard IIGS │
│                                      ┌─────────────────┐ │
│                                      │ Create QuickLink...│ │
│                                      │ User Preferences   │ │
│                                      └─────────────────┘ │
│         ◈              🖼               │
│        Help       Picture Puzzler      │
│                                        │
│       🖼         🚌         📓        │
│      Birds       Tour      Story Board │
│              Copyright © 1990 Apple Computer, Inc. │
│ │ Welcome │ Deskset │ Tool Kit │ Attic │ Basement │ │
└──────────────────────────────────────────────────┘
```
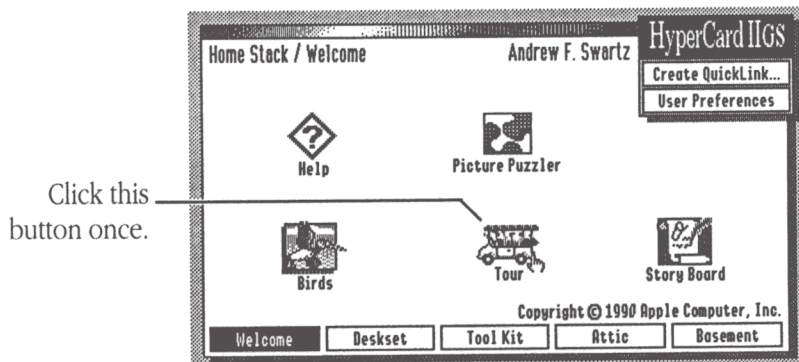
The tour appears on your screen.

6. Click once anywhere to start the tour.

After you click, you'll see a short animated cartoon.

7. Click Introduction.

Click this
button once.
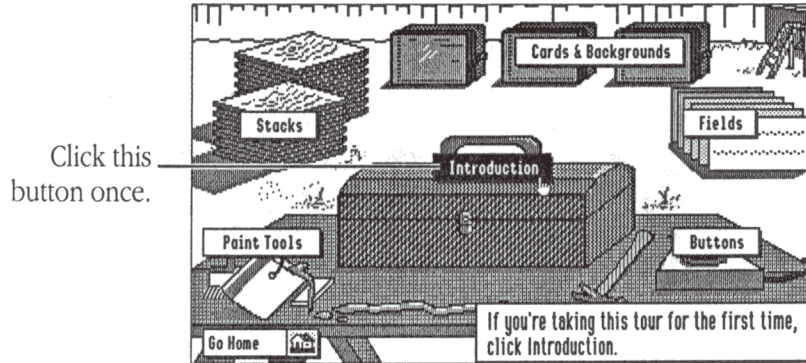
The introduction appears on your screen, as shown in the next step.

8. Click the upper shadow box.

This is a shadow box. Click it for more information.
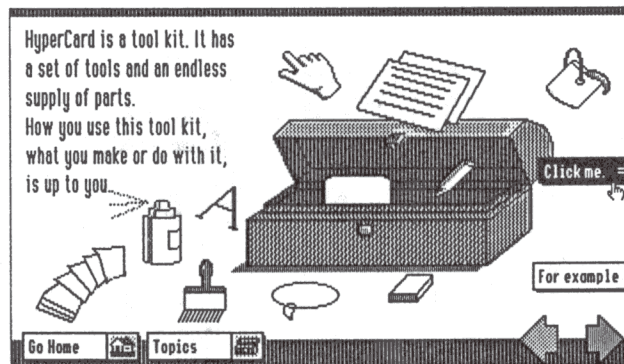
As the information on the screen explains, whenever you see a shadow box during the tour, you can click it to see additional information. You can click the information box to hide it again.

Chapter 3: Browsing Through Stacks

9. Proceed through the tour.

HyperCard is a tool kit. It has a set of tools and an endless supply of parts.
How you use this tool kit, what you make or do with it, is up to you.

Click me.

For example

Go Home   Topics
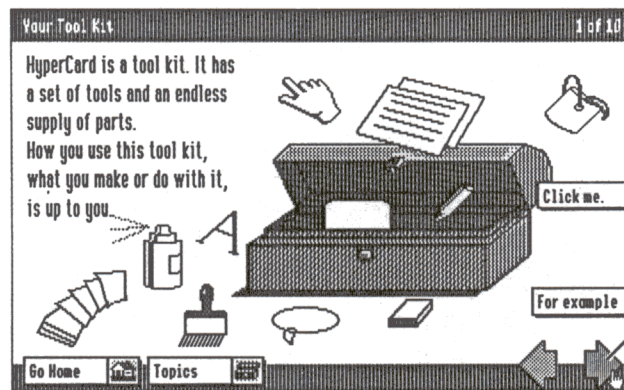
Click the right arrow to move forward through the tour.

You can leave the tour whenever you like by clicking the Go Home button at the bottom-left corner of the screen.

10. At the end of the introduction, click the Go Home button.

If questions come up while you're using HyperCard, you can find quick answers in the Help stack.
You can also refer to your HyperCard manuals.

HELP

To get help
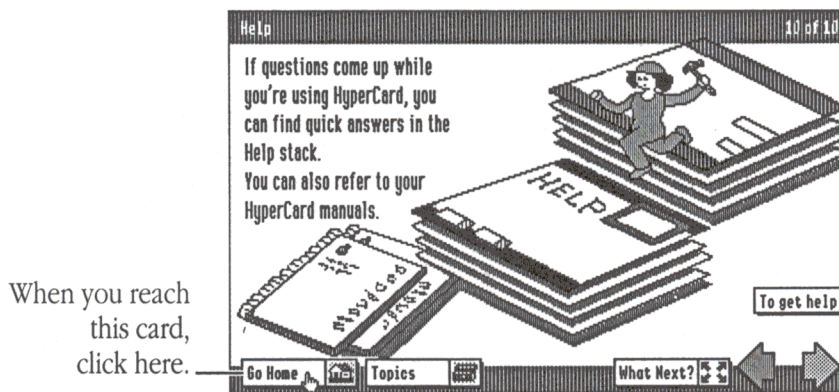
When you reach this card, click here.

Go Home   Topics   What Next?

If you'd like to explore more of the tour before continuing with this book, click the What Next? button instead of clicking the Go Home button. Whenever you're ready to come back to the book, click Go Home.

Opening HyperCard files

Each HyperCard file is called a *stack,* and each stack contains one or more *cards.* You can open stacks either by using the Open Stack command (which is like the Open command in other programs) or, easier still, by clicking buttons. The next two exercises show you both techniques.

Opening stacks by clicking buttons

In this exercise you'll click a button to open the Birds stack and then click another one to return to the Home stack.

Getting ready: If you're looking at the first Home card and can see a button called Birds, you can start with step 1 now. If not, make sure HyperCard is running, choose Home from the Go menu, then choose First from the Go menu.

1. **Click the Birds button *once* to open the Birds stack.**

   After you click, HyperCard closes the Home stack and opens the Birds stack. You see the first card of the Birds stack with a picture of a white pelican on it.

Chapter 3: Browsing Through Stacks
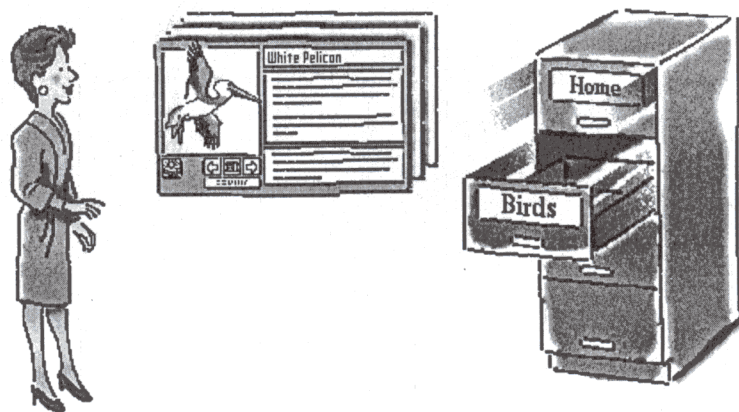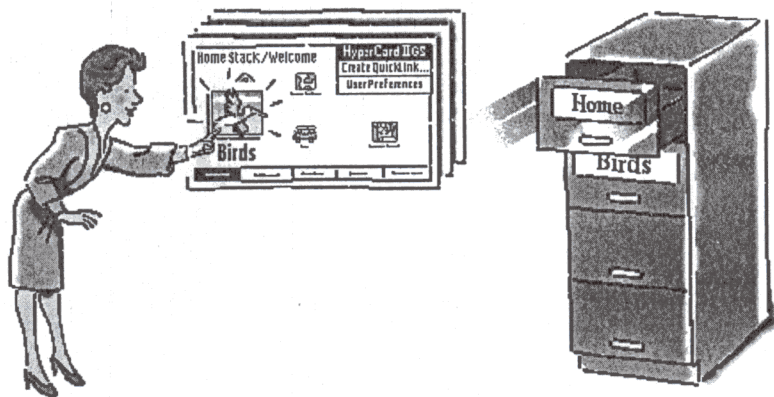
If you have problems clicking, you may not have the pointer in the correct position. Make sure the tip of the forefinger is over the Birds button *both* when you click the mouse button *and* when you release it.

2. Without clicking the mouse button, roll the mouse around to discover the different pointer shapes.

Don't be concerned if the pointer on your screen isn't the shape you think it should be. The pointer changes shape depending on which part of the screen it's over.

I *I-beam pointer.* The pointer changes to this shape when it's over text you can edit.

⌐ *Browse tool.* The pointer changes to this shape when it's over any part of a card (except text).

▶ *Arrow pointer.* The pointer changes to this shape when it's over the menu bar.

3. Click the Home button to return to the Home stack.

The Home button is *linked* to the Home stack. By clicking the button, you close the Birds stack and open the Home stack again.

The Home button
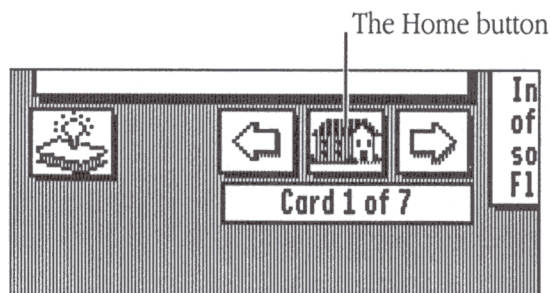
In addition to learning how to use HyperCard buttons to open stacks, you just learned an important concept: When you open a new stack, the old one automatically closes. You can have only one stack open at a time.

Opening stacks by using the Open Stack command

In the last exercise you opened the Birds stack by clicking a button. In this exercise you'll open it again, this time using the Open Stack command. Either way, the result is the same.

1. Pull down the File menu and choose Open Stack.

The Open Stack command works like the Open command in many other programs.

File
New Stack...
Open Stack...   ⌘O
Save a Copy...
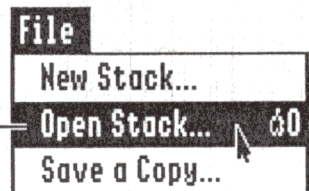
Notice that the shortcut for the Open Stack command is the same as the shortcut for the Open command in many other programs.

After you choose the Open Stack command, HyperCard displays the directory dialog box, as shown in the next step.

2. Go to the Stacks folder inside the HyperCard folder.

If you have trouble finding it, click the Volumes button and double-click the name of your hard disk. Then double-click "HyperCard" and finally double-click "Stacks."

3. Open the Birds stack.

Double-click "Birds" to open the Birds stack.

```
Choose a stack:
⬒ :HD:HyperCard:Stacks:
    🗀 Addresses          ⇧    ( Volumes )
    🗀 ArtIdeas
    🗖 Birds
    🗀 ButtonIdeas             (  Open  )
    🗀 Calendar
    🗀 IconEditor             (  Close  )
    🗀 PicturePuzzler
    🗀 ScriptersTools    ⇩    ( Cancel )
```
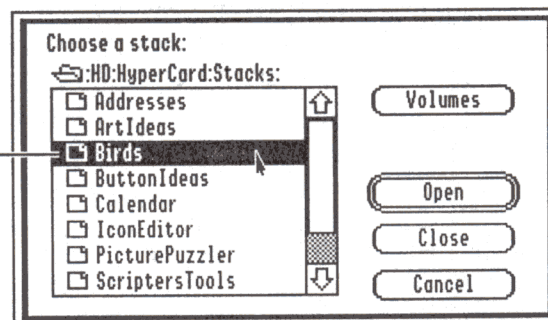
After you double-click, HyperCard closes the Home stack, opens the Birds stack, and displays its first card, just as in the last exercise.

Chapter 3: Browsing Through Stacks

Looking at cards

You've learned a couple of ways to open stacks. But so far you've seen only the first card of each stack. In this section you'll learn how to browse through the cards in a stack.

Getting ready: Before you start this exercise, make sure you're viewing the Birds stack card with the white pelican on it. If you already are, start now with step 1. If not, choose Home from the Go menu, click the Welcome button, then click the Birds button.

1. Click the right arrow button once, and then again.
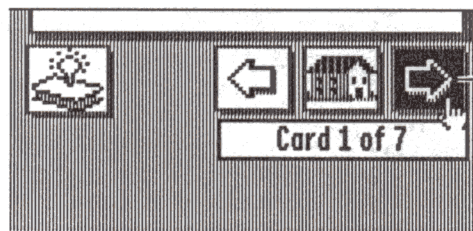
Click here twice to move forward two cards.

Each time you click the right arrow button you move to the next card in the stack. The first time you click you see the bald eagle's card; the second time, you move to the sandhill crane's card.

Notice you are now on the third card of the stack. (This stack has seven cards in it.)

Sandhill Crane

Though adult sandhill cranes have gray feathers, their backs often look brown. The mud of their native marshes contains iron, which stains their feathers when they preen with muddy beaks.

Migrating flocks often fly so high that you can't see them without binoculars.

The sandhill crane mostly breeds in cooler northern lands (from Siberia to central Canada) and winters in the south, from California through Texas to Mexico.

2. Click the left arrow button twice to go back to the first card, which has the white pelican on it.

Each time you click the left arrow button, you go to the previous card.

3. Click the left arrow button one more time.

What happens when you're already on the first card and ask to
go backward? HyperCard displays the last card in the stack—in
this case, the card for the snowy owl.

The cards in a HyperCard stack are arranged in a circular
fashion, so the first card in a stack and the last card in a stack
are next to each other.
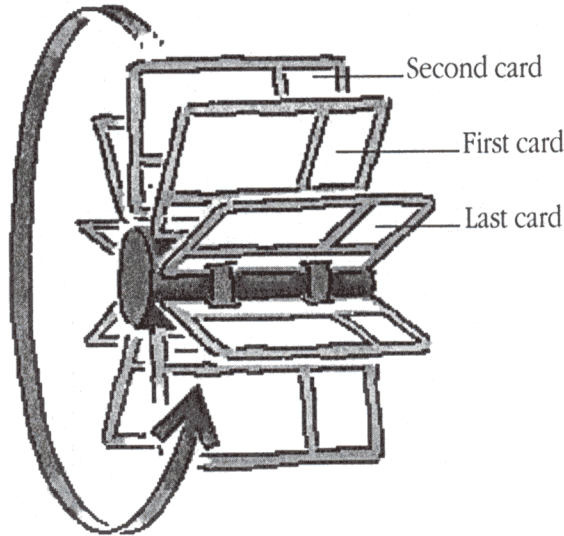
4. Click the right arrow once to return to the first card.

The white pelican's card is displayed.

Now you know the basics of how to get around in HyperCard.
You use buttons or the Open Stack command to move from one
stack to another, and you use arrow buttons to move forward and
backward through a stack.

Knowing only that much, you can browse through almost any stack
you get. But if you learn how to use the Go menu, you'll find it
easier to move around in HyperCard.

Using the Go menu

The Go menu contains commands for navigating through stacks and moving from one stack to another. This section shows you how to use some of the commands in the Go menu.

The basic commands

This exercise teaches you how to use the commands described in this illustration:

Goes to the last card you looked at. —— **Back**   ⌘~

Returns to the Home stack. —— **Home**   ⌘H

Help   ⌘?

Recent   ⌘R

Goes to the first card in the stack. —— **First**   ⌘1

Goes to the previous card in the stack. —— **Prev**   ⌘2

Goes to the next card in the stack. —— **Next**   ⌘3

Goes to the last card in the stack. —— **Last**   ⌘4

Find...   ⌘F

Message   ⌘M

Show All Cards

Getting ready: If you're already viewing the white pelican's card in the Birds stack, you can begin with step 1 immediately. Otherwise, choose Home from the Go menu, click the Welcome button, and click the Birds button.

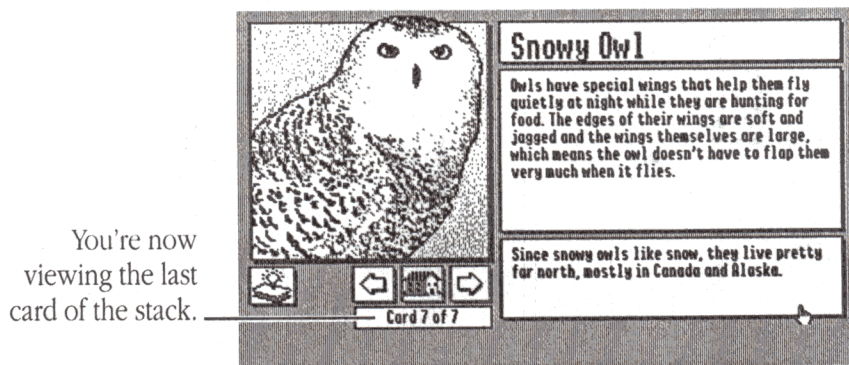1. **Pull down the Go menu and choose Next.**

   The Next command takes you to the next card in the stack, just as the right arrow button did in the previous exercise. You should be viewing the bald eagle's card, the second card in the stack.

2. **Pull down the Go menu and choose Prev.**

The Prev command, like the left arrow button, takes you to the card in the stack immediately before the one you are looking at. *Prev* is short for *previous*. You should be viewing the white pelican's card again, the first card in the stack.

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

As you might expect, the Last command takes you to the last card of the stack you are viewing, in this case the snowy owl's card.

You're now viewing the last card of the stack.

Snowy Owl

Owls have special wings that help them fly quietly at night while they are hunting for food. The edges of their wings are soft and jagged and the wings themselves are large, which means the owl doesn't have to flap them very much when it flies.

Since snowy owls like snow, they live pretty far north, mostly in Canada and Alaska.

Card 7 of 7

4. **Choose First from the Go menu.**

Similarly, the First command takes you to the first card of the stack, and you see the white pelican's card again.

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

The Home command, like the Home button, takes you back to the Home stack. Whenever you get lost, you can return Home by choosing this command.

6. **Choose Back from the Go menu.**

You return to the white pelican's card. The Back command returns you to the last card you looked at, even if the card was in an entirely different stack.

7. **Choose the Back command once again.**

You go to the snowy owl's card.

The Back command retraces your steps through the cards you just viewed, one card at a time.

8. **Finally, choose the Home command.**

The Recent command

You may find that you want to return to a card you've seen recently. To do so, use the Recent command.

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

HyperCard displays a dialog box showing you miniature pictures of up to the last 18 cards you've seen, more or less in the order you've seen them.

Notice, however, that even though you've visited the first Home card twice, it appears only once. To be able to display as many cards as possible in the Recent dialog box, HyperCard displays each card only once.

2. **Click a miniature picture of any of the cards from the Birds stack.**
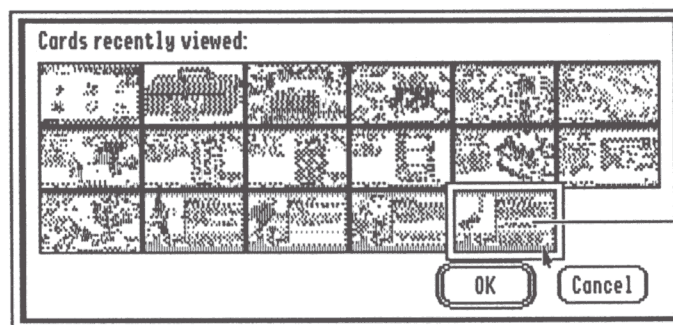
Click any miniature picture that looks like it came from the Birds stack. (Your dialog box may look different since you may have looked at different cards or seen them in a different order.)

You can go to any of the cards represented in the dialog box by clicking its miniature.

3. Click OK.

You go to the card whose miniature you clicked.

❖ *Tip:* Instead of clicking the miniature picture and clicking OK, you can double-click the picture. ❖

Quitting HyperCard

You leave HyperCard the same way you leave any Apple IIGS program, by choosing the Quit command from the File menu. If you'd like to go on with this book now, there's no need to quit; if you'd rather continue another time, you can quit and pick up the book later.

Experts 🔍 only

This section is for people who like learning tricks and shortcuts. If you prefer using programs in the most straightforward way possible, you might want to turn the page and go on to the next chapter.

Each boldface instruction asks you to perform an experiment and see what happens. If the result doesn't make sense, read the short explanation in italics. If you want still more information, check the *HyperCard IIGS Reference*.

◆ **Go to the Birds stack. Then try pressing the Right and Left Arrow keys on your keyboard (as opposed to clicking the arrow buttons on the screen).**

> *The Right Arrow key moves you forward through the stack one card at a time; the Left Arrow key moves you backward. You can use the arrow keys as keyboard shortcuts for navigation.*

> *If the arrow keys don't work, someone has turned on the Text Arrows option on the User Preferences card of the Home stack. See the* HyperCard IIGS Reference *for more details.*

◆ **Go to the Birds stack and press ⌂-H.**

> *The ⌂-H shortcut takes you Home. Pull down the Go menu and look at the other shortcuts. Note that the ⌂ symbol refers to the Command key, the key marked with this symbol. (In some Apple manuals, this is called the Open Apple key.) To press ⌂-H, hold down the ⌂ key and while it's down, press the H key.*

More Basics

You now know how to browse through HyperCard stacks. In this chapter you'll learn how to do the following:

- Type on cards

- Add new cards

- Save stacks

- Use the Home stack

- Use the Message box

- Find a card by searching for text

- Copy art

- Print cards and stacks

- Get help from HyperCard

Typing

Most stacks allow you to do much more than just look at the cards. For example, you can enter your own information, either by typing or by painting. The exercises in this section show you how to type information on cards.

If you've used an Apple IIGS word processor—or any other program that involves typing—you already know most of what you need to know. The main differences you'll notice when working with text in HyperCard are:

- You can't use tabs to indent or line up columns.

- You can't change the text style of individual characters.

- You can't always use the arrow keys to move through text.

Entering text

You can type text only in certain areas on a card. Each card is like a blank form with rectangular areas where you can fill in information. In HyperCard, each of these areas is called a *field*.

The Birds stack has three fields in which you can type:
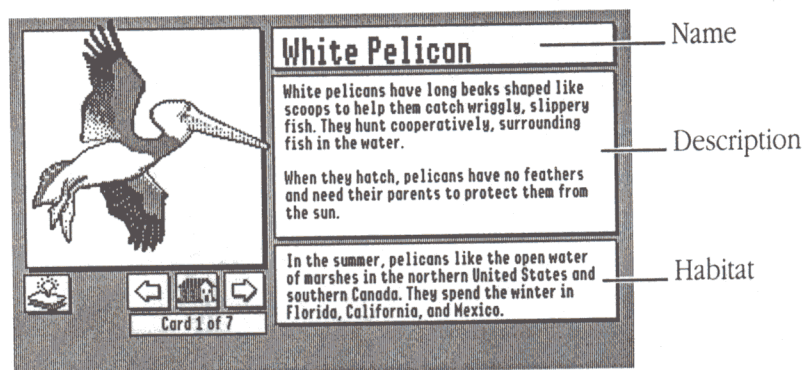
In this exercise you'll fill in the Habitat field for the bald eagle's card.

Getting ready: Before you start this exercise, make sure you're viewing any card in the Birds stack. If not, return to the Home stack and click the Birds button.

Chapter 4: More Basics

1. **Use the arrow buttons to find the bald eagle's card.**

   Click the right or left arrow buttons to find the bald eagle's card. The bald eagle is on the second card.

2. **To indicate where you want to type, click the upper-left corner of the Habitat field.**

Click here.
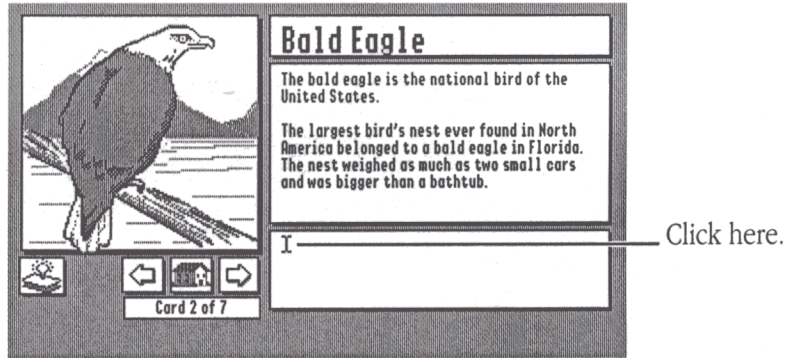
Notice that your pointer changes to the *I-beam pointer* when it's over a field. When you click, the vertical bar that marks the *insertion point* blinks at the beginning of the field.

If you click too far down in the field, use the Delete key to get back to the top of the field. If you click in the wrong field altogether, just try again.
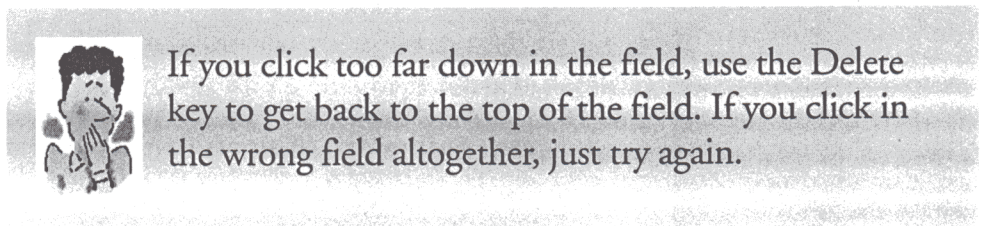
3. Type a description of the habitat, as shown in the illustration.

You need not enter carriage returns as you type. The text will automatically break at the right point.

The bald eagle is an endangered species. Most bald eagles now live in Alaska.
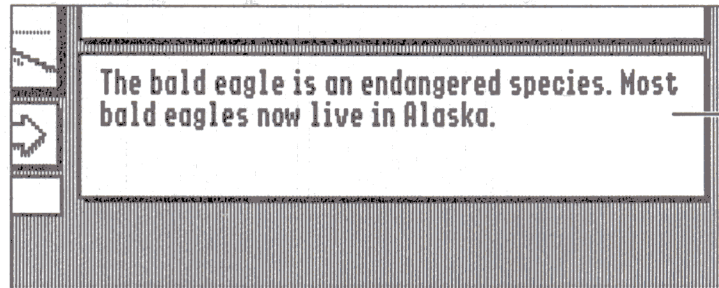
Do *not* press the Return key as you type.

HyperCard automatically saves the text as you type it.

If you make a mistake while typing, you can use the Delete key to erase the mistake. However, you *cannot* use the arrow keys to correct the text.

Editing text   You can edit text in HyperCard fields the same way you edit any text on your Apple IIGS. (If you don't know the standard techniques for editing text, see the documentation that came with your Apple IIGS.) In this exercise you'll use the standard techniques to cut and paste some text.

1. **Select the first paragraph, including the blank line after it.**

First, click here and hold down the mouse button . . .

. . . then, drag down to here and release the mouse button.

Bald Eagle

The bald eagle is the national bird of the United States.

The largest bird's nest ever found in North America belonged to a bald eagle in Florida. The nest weighed as much as two small cars and was bigger than a bathtub.

The bald eagle is an endangered species. Most

(Make sure you include the extra line between the paragraphs.)

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

   The text is removed from the card and placed on the invisible *Clipboard*. (Notice that the shortcut for the Cut Text command is the same as in many other programs.)

3. **Click once immediately below the remaining paragraph.**

Bald Eagle

The largest bird's nest ever found in North America belonged to a bald eagle in Florida. The nest weighed as much as two small cars and was bigger than a bathtub.

Click once just below the paragraph.

The bald eagle is an endangered species. Most
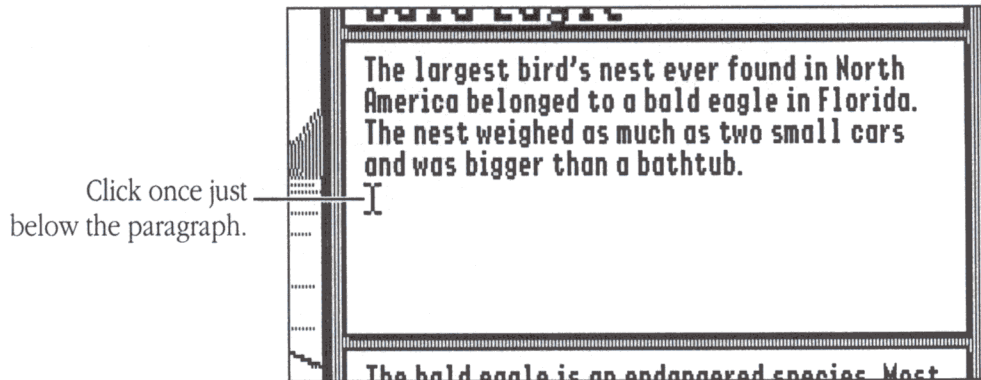
4. **Choose Paste Text from the Edit menu.**

   The paragraph you previously cut is pasted in. (Notice that the shortcut for the Paste Text command is the same as in many other programs.)

5. Insert a blank line between the two paragraphs.

Click here and
press the Return key.

> The largest bird's nest ever found in North
> America belonged to a bald eagle in Florida.
> The nest weighed as much as two small cars
> and was bigger than a bathtub.
> The bald eagle is the national bird of the
> United States.

Adding new cards

You can add new cards to your stack whenever you like. In this exercise you'll create a new card in the Birds stack.

Getting ready: Before you begin, make sure you're still viewing the bald eagle's card in the Birds stack. If not, return Home, click the Birds button, and use the arrow buttons to find the bald eagle's card.

1. Choose New Card from the Edit menu.

Choose the New
Card command.

File   Edit   Go

Undo   ⌘Z

Cut   ⌘X
Copy   ⌘C
Paste Text   ⌘V
Clear

New Card   ⌘N
Delete Card

Bald Eagle

The largest bird's nest ever found in North America belonged to a bald eagle in Florida. The nest weighed as much as two small cars and was bigger than a bathtub.

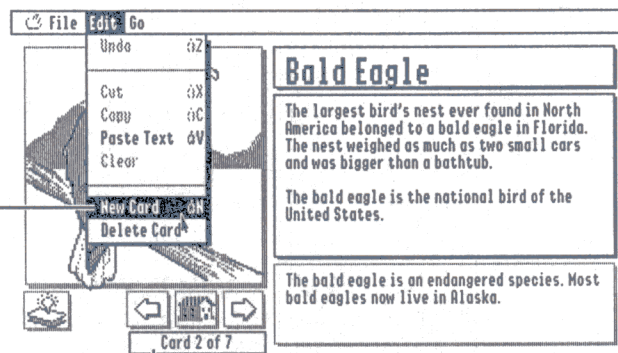The bald eagle is the national bird of the United States.

The bald eagle is an endangered species. Most bald eagles now live in Alaska.
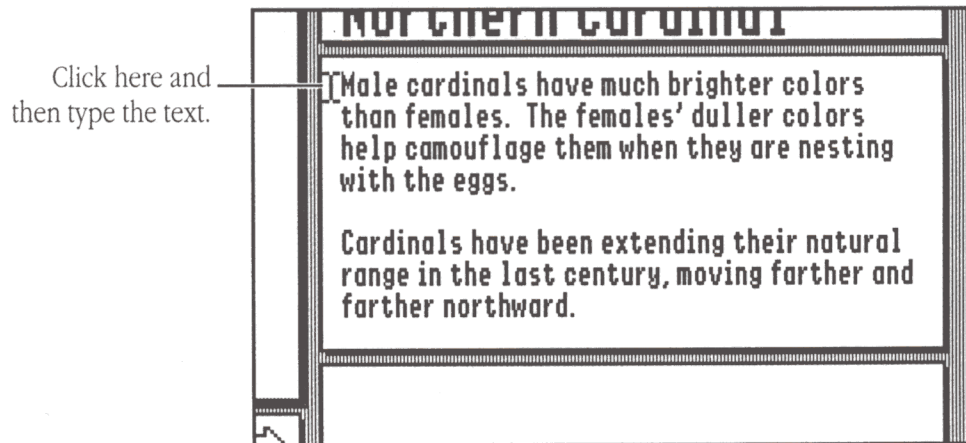
Card 2 of 7

Note that you're
currently viewing
the second card of
a seven-card stack.

HyperCard creates a new blank card, places it after the card you were looking at, and displays the new card:

The new card is inserted after the bald eagle's card. ——

There are now eight cards in the stack.

Card 3 of 8
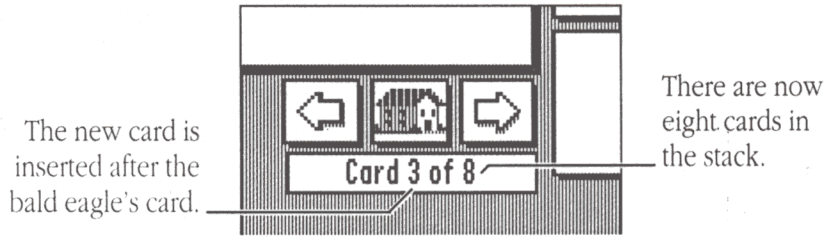
2. **Click in the upper-left corner of the Name field and type a bird's name:**

Click here and then type the text. ——

Northern Cardinal

3. **Click in the upper-left corner of the Description field and type a description:**

Click here and then type the text. ——

Northern Cardinal

Male cardinals have much brighter colors than females. The females' duller colors help camouflage them when they are nesting with the eggs.

Cardinals have been extending their natural range in the last century, moving farther and farther northward.
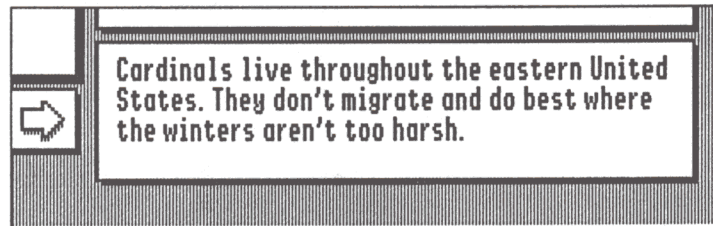
If you're not a great typist, you don't have to type all the text.

4. **Press the Tab key on the keyboard to move to the next field.**

   The insertion point begins to blink in the upper-left corner of the bottom field.

   When you wish to stop typing in one field and begin typing in another, you can use the mouse to move the insertion point (as you did before) or you can use the Tab key (as you did this time).

5. **Type the text describing the range and habitat of the cardinal. (Don't press the Return key.)**

> Cardinals live throughout the eastern United States. They don't migrate and do best where the winters aren't too harsh.
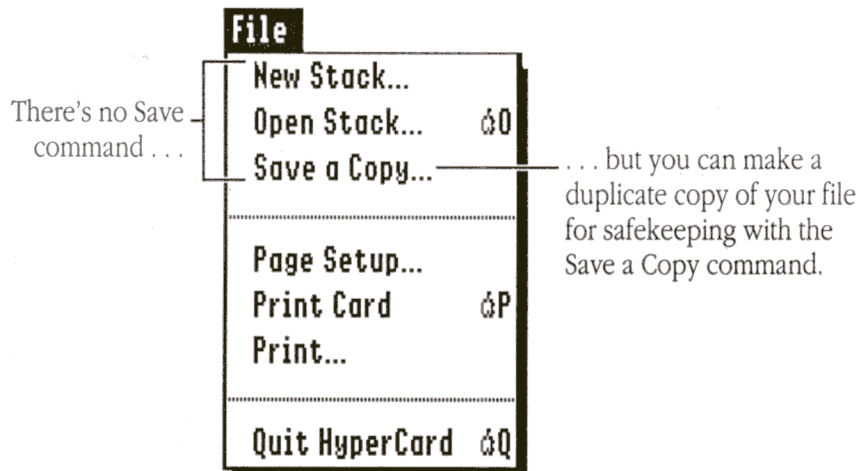
Your new card is complete, except that it doesn't yet have a picture on it. (You'll add a picture of a cardinal to the card by the end of the chapter.)

Saving stacks

Unlike most Apple IIGS software, HyperCard automatically saves changes as you make them. In this exercise you'll see that there is no Save command in the File menu.

1. **Pull down the File menu but** *don't choose any commands.*

There's no Save command . . .

File

New Stack...
Open Stack...   ⌘O
Save a Copy...

Page Setup...
Print Card   ⌘P
Print...

Quit HyperCard   ⌘Q

. . . but you can make a duplicate copy of your file for safekeeping with the Save a Copy command.

2. **Release the File menu.**

If you accidentally chose the Save a Copy command, click Cancel to close the dialog box.

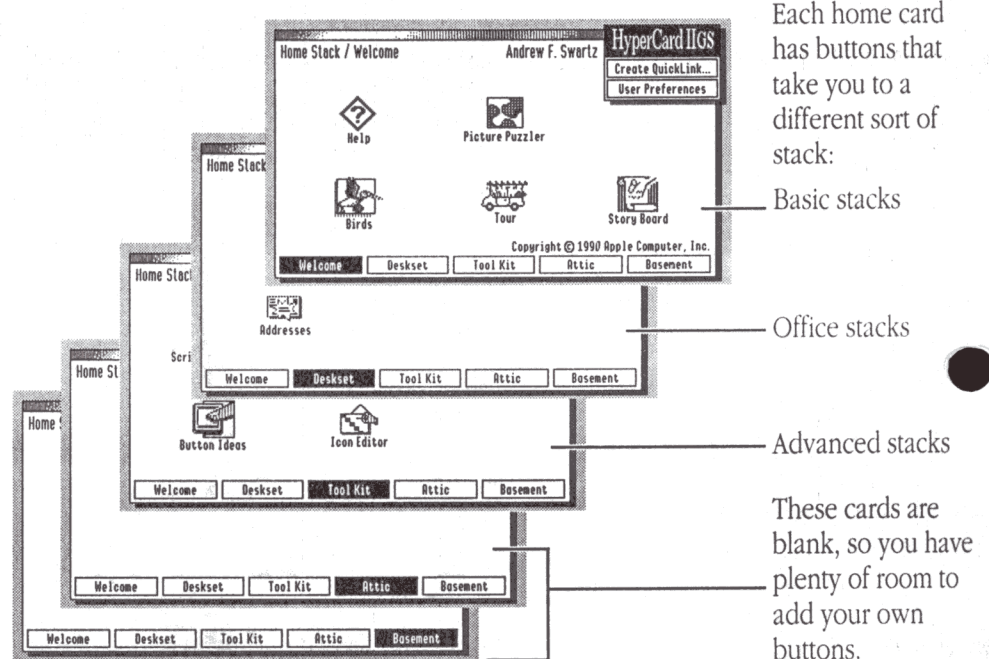Remember, you *never* have to save a file in HyperCard.

The Home stack

The Home stack will usually be your starting place when you start up HyperCard. Take the time to get to know it. In this section you'll learn about two important parts of the Home stack:

- The *Home cards*, which contain a collection of buttons that take you to your favorite stacks.

- The *User Preferences card*, which you use to adjust some of HyperCard's settings.

The Home cards

The first thing you see when you open HyperCard is the first of the five Home cards, called the Welcome card. Each Home card is designed to hold buttons that can quickly take you to any of your favorite stacks. HyperCard comes with five Home cards:

Each home card has buttons that take you to a different sort of stack:

Basic stacks

Office stacks

Advanced stacks

These cards are blank, so you have plenty of room to add your own buttons.

In this exercise you'll go to the Deskset card to open the Calendar stack. (The button for the Calendar stack isn't on the first Home card.) Also, you'll learn how to rename the Home cards. The main lesson is that this is *your* Home stack and you can arrange it to please yourself.
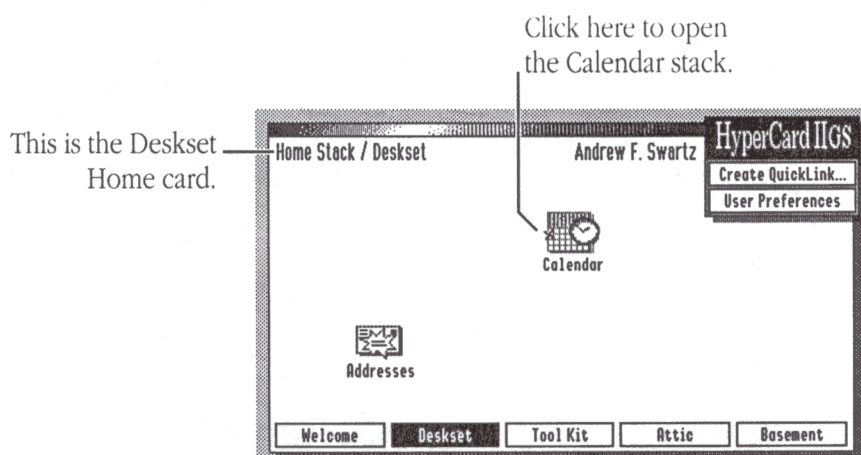
1. **Go Home.**

   Choose Home from the Go menu.

2. **Go to the Deskset card by clicking its button.**

Click here to go to the Deskset card.

Chapter 4: More Basics

3. Open the Calendar stack by clicking its button.

Click here to open
the Calendar stack.

This is the Deskset —
Home card.

You can use the Calendar stack as a combination appointment book and to-do list.
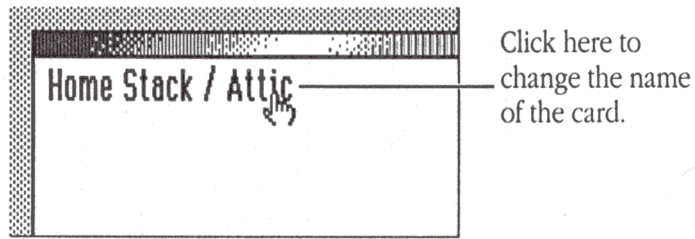
4. Return Home.

Choose Home from the Go menu.

Notice that you return to the same Home card you left from, the Deskset card.
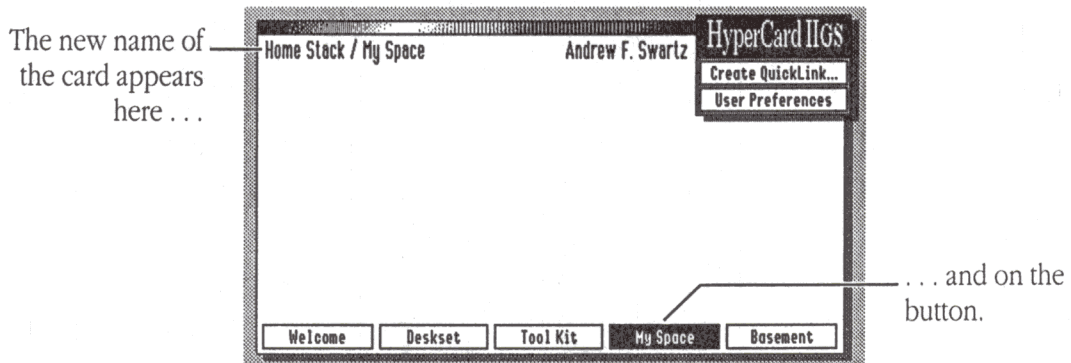
5. Go to the Attic Home card.

Click the Attic button at the bottom of the Home card. The Attic and Basement Home cards are empty to give you room to add your own buttons. You can add buttons to the other three Home cards as well.

You can rename the Home cards, as shown in the next steps.

6. Click the name of the card.

Home Stack / Attic — Click here to change the name of the card.

7. Type the name `My Space` and click OK.

The new name of the card appears here . . .

Home Stack / My Space   Andrew F. Swartz

HyperCard IIGS
Create QuickLink...
User Preferences

. . . and on the button.

Welcome   Deskset   Tool Kit   My Space   Basement

8. Return to the Home card called Welcome.

Click the Welcome button at the bottom of the card.

The User Preferences card

The User Preferences card in the Home stack allows you to choose the *user level* you want to work at. HyperCard has five user levels. When you first install it, HyperCard is set up to work at the second level: Typing. At the Typing level you can look at cards and type on them, but you can't paint the card or modify buttons or fields.

In this exercise you'll choose the highest user level, called Scripting, which allows you to see and use all the menus and commands HyperCard has to offer.
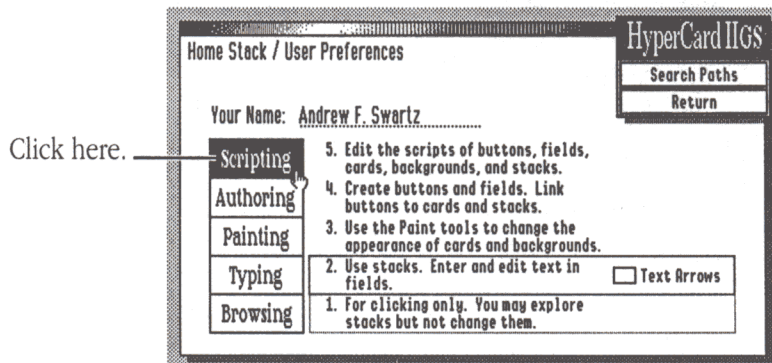
Chapter 4: More Basics

Getting ready: Before you begin, make sure you're still in the Home stack. If you're not, choose Home from the Go menu.

1. Click the User Preferences button on the Home card.

Click here to go to the User Preferences card.

2. Click the button for the Scripting level.

Click here.

Notice that when you move to the Scripting level HyperCard adds two extra menus. (It also adds commands to some of the other menus.)

HyperCard adds these two menus when you move from the Typing level to the Scripting level.

△ **Important:** Setting your user level to Scripting lets you use commands that can temporarily disable the Browse tool (🖑). If you find you've lost the Browse tool and can't type text or click buttons, you can choose the Browse tool from the Tools menu at any time. △

3. **Return to the first card of the Home stack.**

   Choose First from the Go menu. (Alternatively, you can click the Return button on the User Preferences card.)

By changing the Preferences card in this exercise, you've gained access to all the commands and features HyperCard has to offer. When you're done with this book, you can come back to this card and change your user level again if you like.

The Message box

The *Message box* is a special window in HyperCard. It looks like this:

It has room for one line of text in which you can type commands, called *messages*, and in which HyperCard can type replies. Probably the command you'll enter most often in the Message box is the Find command, which allows you to find text on a card.

Controlling the Message box

In this exercise you'll learn how to manipulate the Message box. In the next, you'll learn a few messages. Here's how to display the Message box, move it, and make it go away:

Getting ready: Make sure you're viewing the Welcome card of the Home stack. If you aren't, choose Home from the Go menu and then click the Welcome button at the bottom of the card.

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

   HyperCard opens the Message box.

2. **Move the Message box.**

   You can move the Message box by placing the pointer over the bar at the top of the box, holding down the mouse button, and dragging it where you want it to go.

Move the Message box here . . .

. . . by dragging its top bar.
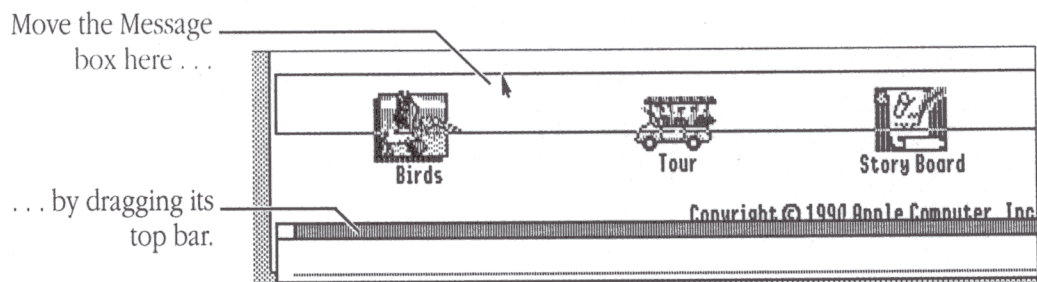
3. **Close the Message box by clicking its close box.**

   Since the close box is small, make sure you've got the tip of the arrow in the box before you click.

Click the close box to make the Message box go away.

Using the Message box

Now try typing some messages in the Message box. When the Message box is visible, anything you type will be placed in the Message box, *unless* the insertion point is blinking in one of the fields on the card.

1. **Go to the Birds stack.**

   Click the Birds button on the first Home card.

2. **Open the Message box again.**

   Choose Message from the Go menu. Don't worry if there's text in the Message box. It will disappear as soon as you start typing.

3. **Move the Message box to the bottom of the screen.**

   Drag the Message box by its top bar to the bottom of the screen so it's not covering any of the buttons or text.

4. **Type the words** `the date` **and then press Return.**

   HyperCard places today's date in the Message box. Remember, you have to press Return after every message. If you make a mistake while you're typing in the Message box, you can correct it by using the Delete key.


The date   return   7/21/90
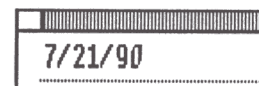
If the date is wrong, your Apple IIGS has the wrong date in its internal calendar. To correct it, set the date in the Control Panel. (For details, see the documentation that came with your Apple IIGS computer.)

5. **Type** `12+5` **and press Return.**

The date in the Message box disappears when you start typing.

You can use the Message box as a calculator. HyperCard places the correct answer, 17, in the Message box.
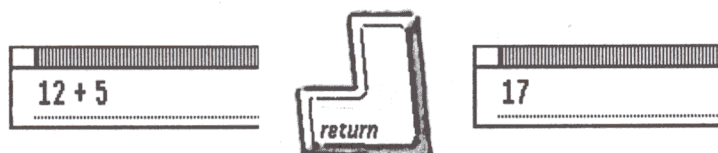
6. **Type** `flash 3`

This message makes the card flash three times.

7. **Type** `go home`

HyperCard takes you back to the Home card. The Message box automatically disappears when you return Home.

8. **Type** `go back`

HyperCard returns you to the Birds stack.

You've just learned your first words of HyperTalk. If you want to learn more about this powerful, English-like programming language, read the *HyperTalk Beginner's Guide.*

Finding text

Many HyperCard stacks contain hundreds of cards. Even so, you can find a particular card quickly, using the Find command, provided you remember one or two words that are typed on the card. In this exercise you'll learn how to use the Find command.

Getting ready: Before you begin, make sure you're viewing the white pelican's card in the Birds stack. If not, return Home and click the Birds button.

1. Choose Find from the Go menu.

HyperCard opens the Message box (if it was closed), types the Find command, and places the insertion point between two quotation marks. (This is exactly the same as if you typed the command yourself. If you do type the command yourself, make sure you include the quotation marks.)
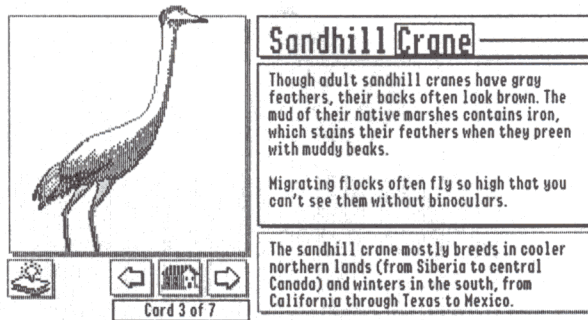
```
Find "|"
```
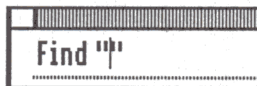
2. Type the word crane

The word appears between the quotation marks.

```
Find "crane"
```

3. Press the Return key.

As soon as you press the Return key, HyperCard searches the Birds stack for the word "crane." (You can find text in only one stack at a time. HyperCard searches only the stack that's open at the moment you enter the Find message.)

Sandhill Crane

Though adult sandhill cranes have gray feathers, their backs often look brown. The mud of their native marshes contains iron, which stains their feathers when they preen with muddy beaks.

Migrating flocks often fly so high that you can't see them without binoculars.

Card 3 of 7

The sandhill crane mostly breeds in cooler northern lands (from Siberia to central Canada) and winters in the south, from California through Texas to Mexico.

HyperCard finds a card with the word "Crane" on it, displays the card, and puts a box around the word.

Chapter 4: More Basics

4. Choose Find from the Go menu again.

If you like shortcuts, the Find command has an easy one to remember: ⌘-F.

```
|▐ ▏▌▐ ▏▌▐ ▏▌▐ ▏▌▐ ▏▌▐ ▏▌▐ ▏▌▐ ▏▌|
| Find "crane"_____ |
|.................................|
```
When you choose the Find command again, it shows the last word you looked for and highlights it.
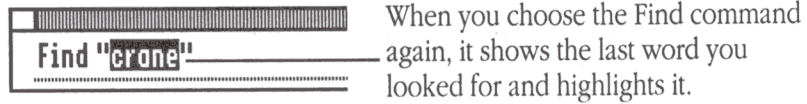
❖ *Open Apple key symbol:* The symbol ⌘ refers to the Command key, the key or keys on your keyboard that are marked with this symbol. (In some Apple manuals, this key is called the Open Apple key.) To press ⌘-F, press the F key while holding down the ⌘ key. ❖

5. Type alaska

As soon as you start typing, the old word, "crane," disappears. Note that you don't have to type capital letters when you use the Find command.

```
|▐ ▏▌▐ ▏▌▐ ▏▌▐ ▏▌▐ ▏▌▐ ▏▌▐ ▏▌▐ ▏▌|
| Find "alaska"                   |
|.................................|
```

6. Press the Return key.

When you press the Return key, HyperCard finds the next card in the stack with the word "Alaska" on it, in this case the tufted puffin's card.

7. Press the Return key again.

Each time you press Return, HyperCard finds the next use of the word "Alaska."

8. Close the Message box.

You can either click its close box or choose Message from the Go menu again.

Copying and pasting a picture

You know how to add text to cards, but that's not all you can do. You can also add art. In this exercise, you'll copy a picture of a cardinal from the Art Ideas stack to the cardinal's card.

Copying the picture

Start by finding the right picture and copying it:

1. **Go Home.**

   Choose Home from the Go menu.
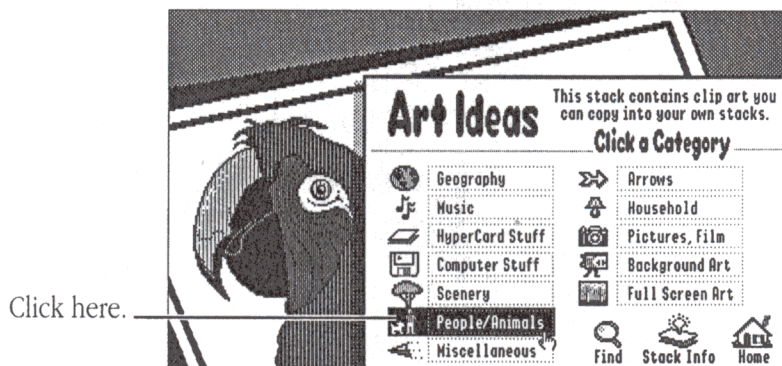
2. **Go to the Toolkit Home card.**

   Click the Toolkit button at the bottom of the Welcome card.

3. **Go to the Art Ideas stack by clicking its button.**

Art Ideas

4. **Go to the People/Animals section by clicking its button.**

Click here.

5. **Click the right arrow button twice to see the cardinal.**

Chapter 4: More Basics

6. **Choose the Lasso tool from the Tools menu.**

The Lasso tool.

The Lasso tool allows you to select an irregularly shaped object without including any of the extra space around it.

7. **Use the Lasso tool to select the picture of the cardinal.**

Hold down the mouse button and draw a line around the cardinal with the Lasso tool.
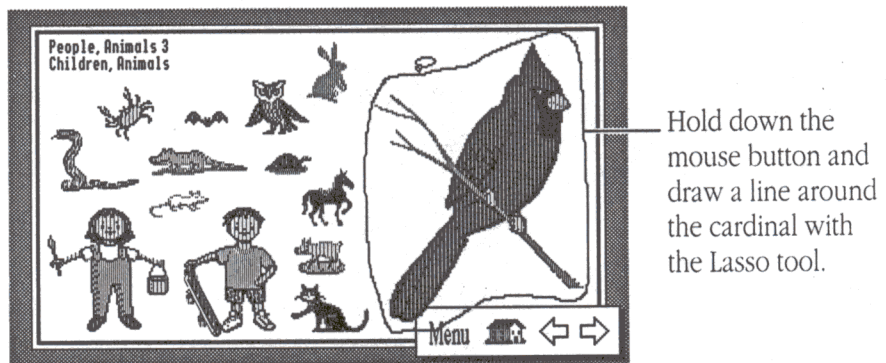
After you release the mouse button, the cardinal is surrounded by a moving dashed line (sometimes called "marching ants") to indicate that it's selected.

If you make a mistake, click once anywhere else on the card and try again.

8. Choose Copy Picture from the Edit menu.

A copy of the picture is placed on the invisible Clipboard. The original remains on the card.

> If the art disappears from the card, you probably chose Cut Picture instead of Copy Picture. Choose Undo from the Edit menu and try again.
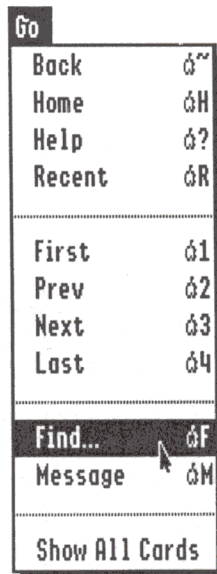
Pasting the picture

Now you'll return to the Birds stack, find the cardinal's card, and paste the picture:

1. Go back to the Birds stack by using the Recent command.

Go	
Back	⌘~
Home	⌘H
Help	⌘?
Recent	⌘R
First	⌘1

Choose the Recent command . . .

Cards recently viewed:

OK   Cancel
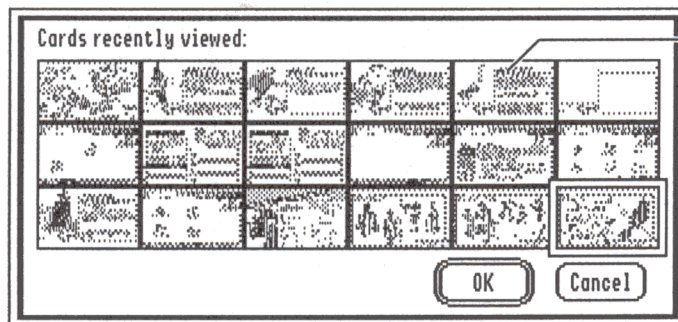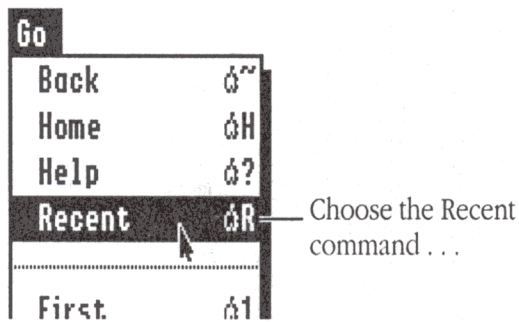
. . . then double-click any of the miniatures in the Recent dialog box that look like they come from the Birds stack.

(Your Recent dialog box may look different.)

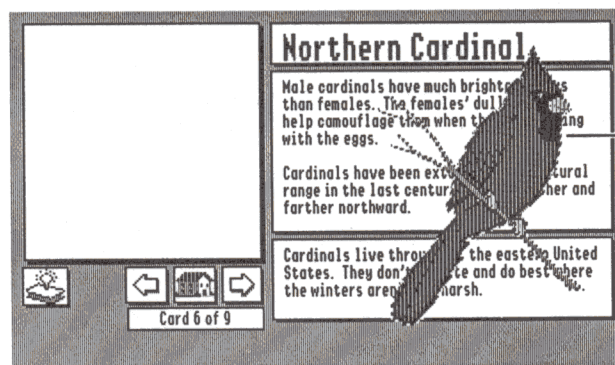**2. Find the cardinal's card by using the Find command.**

Go	
Back	⌘~
Home	⌘H
Help	⌘?
Recent	⌘R
First	⌘1
Prev	⌘2
Next	⌘3
Last	⌘4
Find...	**⌘F**
Message	⌘M
Show All Cards	

Find "cardinal"

return

First, choose the Find command from the Edit menu.

Then type cardinal and . . .
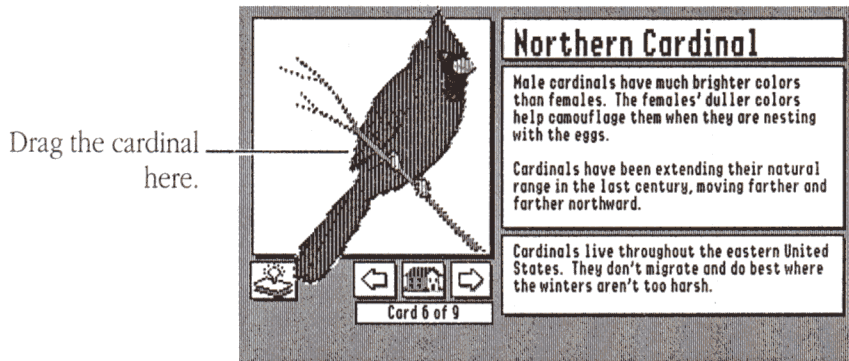
. . . press Return.

The cardinal's card appears.

3. Choose Paste Picture from the Edit menu.

Northern Cardinal

Male cardinals have much brighter ___ than females. The females' dull ___ help camouflage them when they ___ ing with the eggs.

Cardinals have been ex___ ___ural range in the last centur___ ___her and farther northward.

Cardinals live thro___ the easte___ United States. They don't ___te and do best ___here the winters are ___arsh.

Card 6 of 9

The picture appears and is selected.

△ **Important:** Be careful not to click the card outside the selected cardinal accidentally. If you do, you'll deselect the picture and won't be able to finish the exercise unless you use the Lasso tool to select the bird again. △

4. Move the picture into position by dragging it.

Drag the cardinal here. ———

Northern Cardinal

Male cardinals have much brighter colors than females. The females' duller colors help camouflage them when they are nesting with the eggs.

Cardinals have been extending their natural range in the last century, moving farther and farther northward.

Cardinals live throughout the eastern United States. They don't migrate and do best where the winters aren't too harsh.

Card 6 of 9

5. Choose the Browse tool from the Tools menu.

The Browse tool. ———

It's a good habit to choose the Browse tool after you're finished working with other tools. Without the Browse tool, you can't click buttons and type in fields.

Printing

In this section you'll learn how to print a single card or the whole stack. HyperCard offers many printing options, including a variety of ways to arrange the cards on the page and sophisticated methods for generating reports. See the *HyperCard IIGS Reference* for details on these options.

Printing one card   In this one-step exercise you'll print the card you just pasted a picture onto.

1. **Choose Print Card from the File menu.**

   HyperCard prints the card.

   > If you have problems printing, consult the manuals that came with your printer and your Apple IIGS.

Printing a whole stack   In this exercise you'll learn about the Print Stack command.

Getting ready: If you're viewing any card in the Birds stack, you're ready to begin. If not, go Home and click the Birds button.

❖ *Note:* This exercise takes a while. If you're in a hurry, you might want to skip it. ❖

1. **Choose Print from the File menu.**

   HyperCard displays a dialog box that offers a variety of options for printing stacks, as shown in the next step.

2. **Click the Print button.**
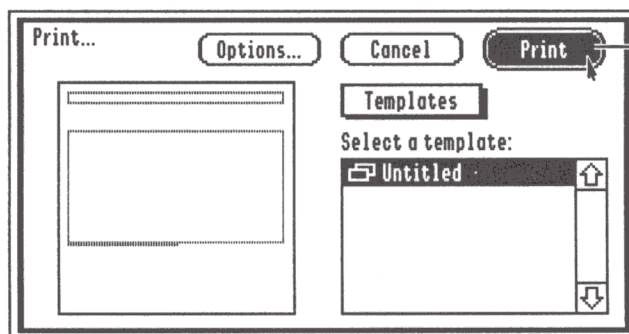
Click here to print the stack.

Getting help

If you have a question about how to do something in HyperCard, you can often get the answer from the HyperCard IIGS Help stack. The HyperCard Help stack gives you two ways to find answers: by looking through its list of topics or by searching for words.

Using the list of topics

Suppose you wanted to learn how to use HyperCard to print labels. You could look through the list of topics as described in this exercise:

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

   HyperCard opens the HyperCard IIGS Help stack.

   If you like shortcuts, Help has an easy one to remember: ⌂-? (⌂–question mark). (You can also get to the Help stack by clicking the Help button on the first Home card.)

2. **Click Printing in the list of topics.**

Click here to select the topic.
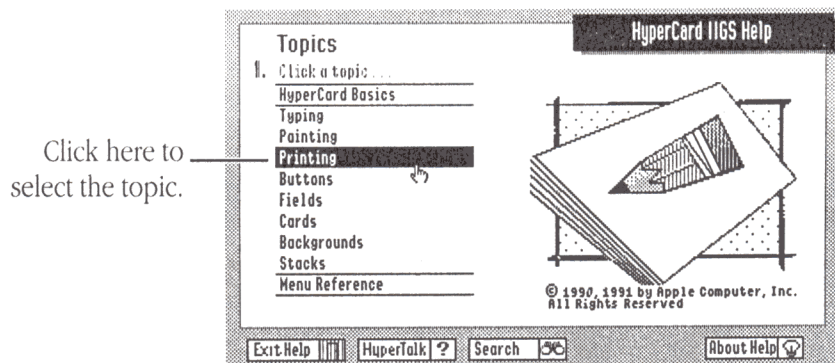
Clicking a topic shows you a list of related subtopics from which to choose, as you'll see in the next step.

Chapter 4: More Basics

3. Click Printing labels in the list of subtopics.

```
┌──────────────────────────────────────────────────┐
│  Topics                        HyperCard IIGS Help │
│ 1. Click a topic...    2. Click a subtopic.        │
│    HyperCard Basics      Printing a single card  ⬆ │
│    Typing                Printing a stack          │
│    Painting              Printing part of a stack  │
│    Printing              Printing labels           │
│    Buttons               Printing the text in specific fields │
│    Fields                Printing on an ImageWriter printer │
│    Cards                 Printing on a LaserWriter printer │
│    Backgrounds                                     │
│    Stacks                                          │
│    Menu Reference                                ⬇ │
│                                                    │
│ [Exit Help|▓] [HyperTalk|?] [Search|◯◯]   [About Help|▽] │
└──────────────────────────────────────────────────┘
```

Click here to select
the subtopic.

The Help stack displays information about the subtopic, as shown in the next step.

4. Use the arrow buttons to finish reading about printing labels.

```
┌──────────────────────────────────────────────────┐
│ Printing labels                        Printing    │
│ The text you want to print as labels   To print labels: │
│ needs to be in background fields in a             │
│ single background of your stack.       1. Choose Print from the File menu. │
│                                        2. Click the report template that you │
│ Before you can print labels, you have     designed for your labels. │
│ to design a printing template in       3. Click Print. │
│ Report style specifying which                     │
│ background fields contain the text     To create a report template: │
│ you want on your labels and how you               │
│ want it printed (set the user level    1. Choose Print from the File menu. │
│ to Authoring or higher).               2. Press the shadow box labeled │
│                                           Templates to view that menu. │
│                                        3. Choose New Template from the │
│                                                    │
│ [Tips|▒] [Demo|▒] [See Also|▒] [Back to 1|▒] ⬅ 1 of 5 ➡ │
│ [Exit Help|▓] [HyperTalk|?] [Search|◯◯] [Print|▣] [Topics|▣] │
└──────────────────────────────────────────────────┘
```

There are five
cards describing
this subject.

Click the right
arrow button to see
the other cards.

If you want to pursue related topics, click the See Also button.

5. Click the Topics button to return to the first card in the Help stack.

You return to the Topics card.

Searching for a phrase

If you're not sure what topic to look under, you may want to use the Search feature. For this exercise, suppose you wanted to recall how to copy a picture in the Home stack.

Getting ready: Make sure you're viewing the Topics card in the HyperCard IIGS Help stack. If not, choose Help from the Go menu.

1. Click the Search button.
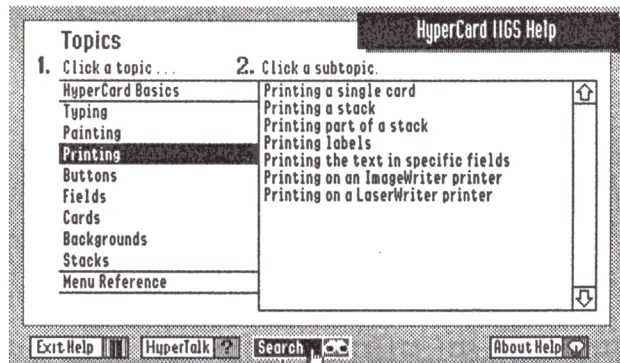
Click here.

The Help stack displays the Search card, as shown in the next step.

2. Type `Copy picture`
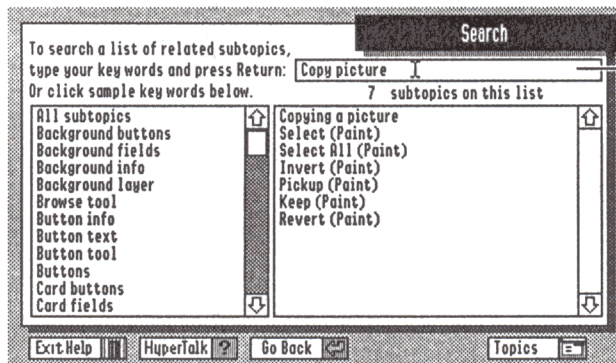
When you type `Copy picture`, it appears in this box.

3. **Press Return.**

   The Help stack searches for all topics related to copying pictures. It finds seven topics and displays them in the big box below the box where you typed "Copy picture."

4. **Click "Copying a picture" to choose the topic.**

   The Help system displays information about selecting and copying pictures.

5. **Use the arrow buttons to finish reading about copying pictures.**

6. **Click the Exit Help button.**

   The Help stack closes and you return to whatever stack you were looking at before you chose Help from the Go menu.

Experts only

This section contains several exercises showing you shortcuts and more complex features. If you prefer to focus on HyperCard's more routine features, skip this section and go to the next chapter.

◆ **In the Birds stack, press Tab several times. Then press Shift-Tab several times. (Press Shift-Tab by holding down the Shift key while pressing Tab.)**

> *Each time you press Tab, you highlight the next field. Each time you press Shift-Tab, you highlight the previous field. Tab and Shift-Tab are shortcuts for moving from one field to the next.*

◆ **While holding down the key, pull down the Go menu.**

> *HyperCard displays an alternative Go menu that uses pictures instead of words.*

Exploring

You now have the technical skills you need to handle almost any new stack you might come across. But to make the most of HyperCard you need more than just technical skills—you need a strategy.

This chapter teaches you a five-step strategy for exploring new stacks:

- Open a copy of the stack.

- Experiment with the stack.

- Find any hidden buttons.

- Find all the fields.

- Look for help.

You'll also learn how to get out of a stack when you want to, and you'll explore three stacks.

Practice with the Birds stack

In this section you'll apply the five-step strategy to the Birds stack.

Open a copy of the stack

The first step in the strategy is to open the stack. Before you open any stack, make sure you have a backup copy. (You already copied all the original stacks, including the Birds stack, onto your hard disk in Chapter 2. If anything goes wrong, you still have the original disks as backups.) To open the Birds stack, do the following:

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

   Choose the Home command from the Go menu and click the Welcome button at the bottom of the card.

2. **Click the Birds button.**

   The Birds stack opens.

Experiment with the stack

If a stack is well designed, you should be able to figure out how to use it by trying it out. So before going any further, start clicking buttons and typing in fields. Do whatever seems right.

For the most part, you've already done that with the Birds stack. However, there's still one element of the stack that you haven't tried and that doesn't seem to have anything to do with birds:

What's this?
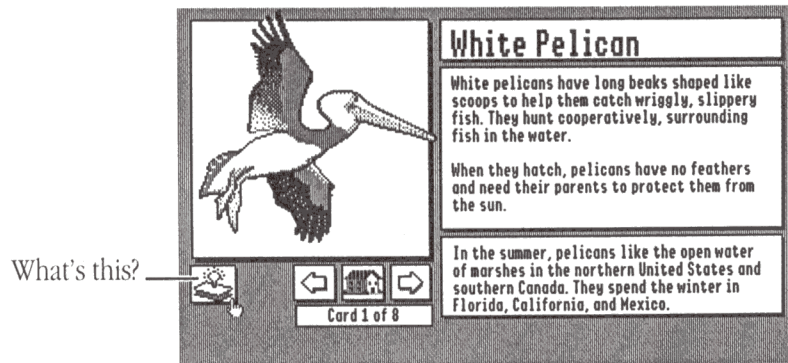
The best thing to do is try it out.

1. **Click the light bulb button.**

Clicking the button displays information about the stack. Many of the stacks that come with HyperCard have a button with this icon. Click it to learn more about the stack.

2. **Click OK.**

Here are some of the icons commonly used for standard types of buttons:

Moving within a stack

Previous Card	Next Card	Previous Card	Next Card	First Card	Last Card

Moving between stacks and programs

Go Home	Go Home	Open a Stack	Open a Program	Open a Document	Go Back

Utilities

Find	Sort	Show All Cards

Information

About This Stack	About This Stack	Help

Find hidden buttons

Sometimes you may fail to notice an important button. That's why the third step of the strategy is to look for hidden buttons.

In this exercise, you'll learn a technique for finding hidden buttons in the Birds stack. But be careful: The author of a stack may camouflage buttons for a good reason.

Getting ready: If you're already viewing the first card of the Birds stack, start with step 1 now. If not, go Home, click the Welcome button, then click the Birds button.

1. Hold down the Option and ⌘ keys to outline all the buttons.

△ **Important:** Do *not* click any buttons or fields while you have the Option and ⌘ keys pressed. If you do, you may see a dialog box containing the button's or field's script. If you do get such a dialog box, just click its Cancel button to get rid of it. △

While the two keys are pressed, rectangles appear around the buttons. Four of the buttons are no surprise—you've already used the Home button, the light bulb button, and the two arrow buttons; but why is the picture of the bird outlined as if it's a button?

Why is the picture highlighted as if it were a button? ——

White Pelican

White pelicans have long beaks shaped like scoops to help them catch wriggly, slippery fish. They hunt cooperatively, surrounding fish in the water.

When they hatch, pelicans have no feathers and need their parents to protect them from the sun.

In the summer, pelicans like the open water of marshes in the northern United States and southern Canada. They spend the winter in Florida, California, and Mexico.

Card 1 of 7

2. Release the Option and ⌘ keys.

3. Click the picture of the bird to see what it does.

The invisible button on top of the white pelican's picture plays the pelican's call through the computer's speaker. If you can't hear the call, try increasing the volume setting in your Control Panel.

All the birds in this stack, except the cardinal, have a similar button to play the bird's call.

Find the fields   You usually won't have much trouble with the fourth step of the strategy: finding the important fields. They're obvious in most stacks. But you can make sure you've found them all by using the Tab key. Try the technique with the Birds stack:

1. Press the Tab key once.

The first field is selected.

△ **Important:** Be careful not to type anything while the field is selected, or you will erase the selected text. If you do accidentally erase the text, you can use the Undo command to restore it. △

2. Press the Tab key several more times.

Each field is highlighted in turn—first the Name field, then the Description field, then the Habitat field, and then the Name field again. No surprises here: Those are the three fields you've already typed in.

As it happens, there's another field in the Birds stack: the one with the card's number in it. You'll learn more about locked fields like this one later in this book.

Look for help   The fifth and last step of the strategy invokes the old adage, "When all else fails, read the instructions." In short, if the stack comes with a manual, read it. Or if it has Help buttons or menu commands, try them.

The Birds stack doesn't offer any way to get help except for the light bulb button, which you've already used.

Emergency exits

Sometimes you may decide you want to get out of a stack before the stack wants to let you go. If that's the case, here are two tricks that you'll find useful: making the menu bar reappear and using the keyboard to go Home.

Disappearing menu bars   Some stacks hide the menu bar for aesthetic reasons. Fortunately, it's easy to make the menu bar appear and disappear:

1. **Press ⌘–Space bar.**

   Hold down the ⌘ key while pressing the Space bar. The menu bar disappears.

2. **Press ⌘–Space bar again.**

   The menu bar reappears.

Going home   If all else fails, go Home. You already know two ways of going Home: You can click the Home button if the card has one, or you can choose the Home command from the Go menu. If those options aren't available (or even if they are), you can always press ⌘-H to go Home.

1. **Go to any stack besides the Home stack.**

   If you're on the Home card, click the Birds button.

2. **Press ⌘-H.**

   Hold down the ⌘ key while pressing H. You return Home.

Chapter 5: Exploring

The Addresses stack

The Addresses stack is a full-featured electronic address book. In this exercise, you'll use the five-step strategy to explore it.

Getting ready: If you already have the Home stack open, start with step 1 now. If not, go Home.

1. **Open the Addresses stack by going to the Deskset Home card and clicking the Addresses button.**

Click here to open the Addresses stack.
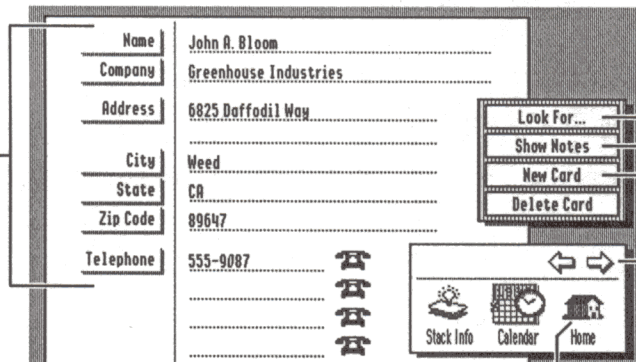
Addresses

2. **Experiment with the stack.**

Here are some guesses you could make about the Addresses stack:

Since this is an address book, the purpose of these fields seems clear.

Name	John A. Bloom
Company	Greenhouse Industries
Address	6825 Daffodil Way
City	Weed
State	CA
Zip Code	89647
Telephone	555-9087

Look For...
Show Notes
New Card
Delete Card

Stack Info   Calendar   Home

These look like buttons. Try them.

Click here to create a new blank card.
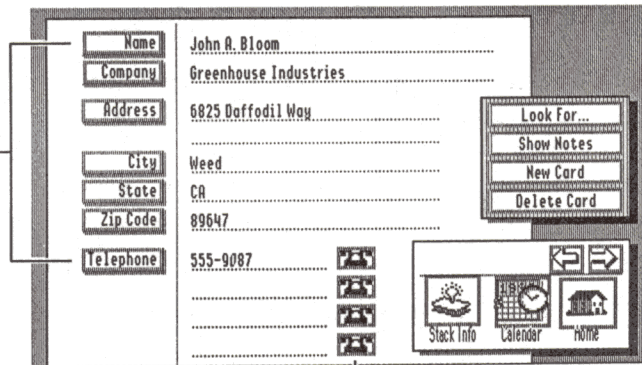
Arrow buttons usually move you forward and backward through the stack. Try them.

As you might guess, this button takes you back to the Home card.

3. Find hidden buttons by holding down the and Option keys.

Are there any other buttons you haven't seen yet? Hold down the and Option keys to see if anything surprising gets outlined.

These labels are also buttons. Click them to see what they do.

Name	John A. Bloom
Company	Greenhouse Industries
Address	6825 Daffodil Way
City	Weed
State	CA
Zip Code	89647
Telephone	555-9087

Look For...
Show Notes
New Card
Delete Card

Stack Info   Calendar   Home

The telephone icons are buttons that can dial your phone for you.

4. Find the fields by pressing Tab.

Keep pressing the Tab key until you've found all seven fields.

5. Look for help.

Click the light bulb icon labeled "Stack Info." When you're done reading, click OK.

Chapter 5: Exploring

The Picture Puzzler

The Picture Puzzler stack, as you might expect, is a HyperCard version of a picture puzzle.

Getting ready: If you're already viewing the first Home card, start with step 1 now. If not, go Home and click the Welcome button.

1. **Open the Puzzler stack by clicking its button.**

Click here to open the stack. ————

Picture Puzzler

2. **Experiment with the stack.**

   The instructions on the first card tell you to choose an option from the Puzzle menu. Pull down the Puzzle menu and choose Play Puzzle.

Puzzle
Play Puzzle ———— Try this command.
Shuffle Puzzle
Instructions
Go to Artwork Card
Make Puzzle
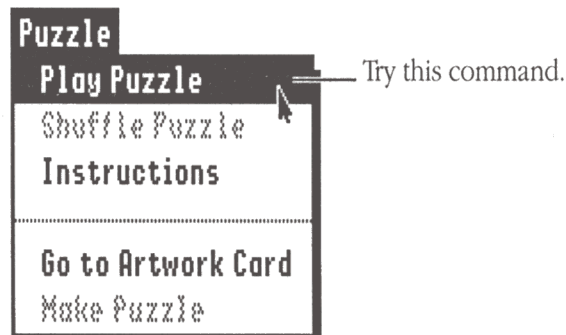
   Since this is a puzzle, the idea must be to put the pieces together. Can you figure out how?

   ❖ *Note:* If you want to see the whole puzzle, you have to hide the menu bar. Remember, you can hide the menu bar by pressing ⌘–Space bar, and you can show it again by pressing ⌘–Space bar again. ❖

3. **Find the hidden buttons.**

   When you hold down the ⌘ and Option keys, each of the puzzle pieces is outlined. As it happens, each piece is a button. What happens when you click the buttons?

4. **Find the fields.**

   The Tab key yields no special information. There are no fields.

5. **Look for help.**

   You can get Help from the Puzzle menu by choosing the Instructions command.

   When you're done reading the instructions, click OK. When you're finished playing with the puzzle, return Home.

Tinkering With Stacks

Once you're comfortable exploring stacks created by other people, you can start learning how to change old stacks and create new ones to meet your own needs. This process is called *authoring* stacks.

In this chapter you'll enhance the Birds stack.

Tools of the trade

To start authoring you'll need tools and commands you haven't used before. Most of the important ones are in the Tools and Objects menus. You'll learn about many of the specific tools and commands later in this book.

The Tools menu is special for two reasons: It has icons rather than words, and you can "tear it off" the menu bar and move it around the screen, as shown in the exercise that follows.

Getting ready: If the Tools menu is visible on your menu bar, you can begin now with step 1. If you don't have a Tools menu, you need to change your user level as described in "The User Preferences Card" in Chapter 4.

1. Go to the Birds stack.

2. Tear off the Tools menu as shown here:

Pull down the Tools menu as if you were going to choose a command . . .

. . . but drag down well past the bottom of the menu. Release the mouse button when the palette reaches the location you want.
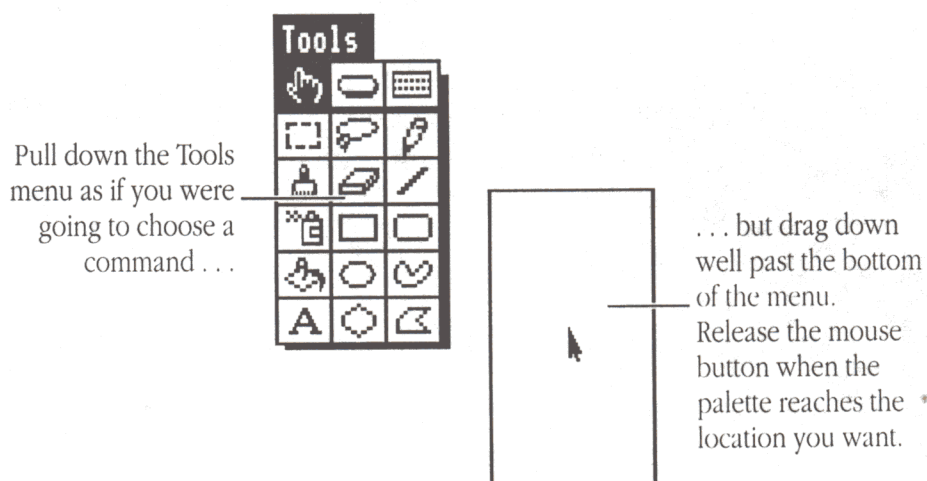
When the Tools menu is torn off, it is called the *Tools palette*.

3. **Drag the Tools palette by its top bar to the top-left corner of the screen.**

To move the
palette, drag it by
its top bar.

White Pelican

White pelicans have long beaks shaped like
scoops to help them catch wriggly, slippery
fish. They hunt cooperatively, surrounding
fish in the water.

When they hatch, pelicans have no feathers
and need their parents to protect them from
the sun.

In the summer, pelicans like the open water
of marshes in the northern United States and
southern Canada. They spend the winter in
Florida, California, and Mexico.

Card 1 of 8

4. **Close the palette by clicking its close box.**

Click the close
box to close the
Tools palette.
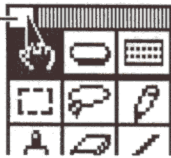
Since the close box is small, make sure you have the *tip* of the
arrow in the box before you click.

The plan

The goal of this chapter is to teach you the techniques you need to author stacks. You'll learn these techniques by completing a set of exercises in which you'll tinker with the Birds stack in a variety of ways.
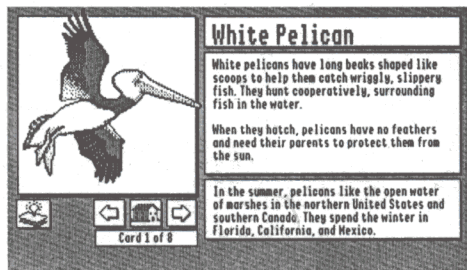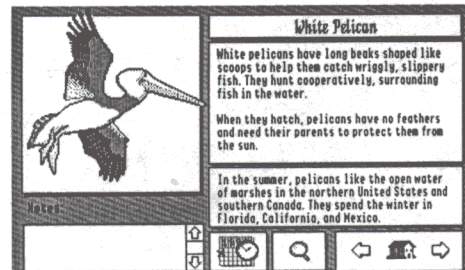
Before   After

Preparations

Before you begin, there are two things you must do: Make a new copy of the stack so you don't mess up the old one, and create a button on the Home stack to take you to the copy.

Saving a copy

Whenever you're about to make major changes to a stack, you should make a copy of the stack in case you make a mistake that's difficult to correct. You can choose whether you want to change the original stack or the copy. (It doesn't really matter.) In this exercise you'll create the copy, which you'll proceed to change in the following exercise.

Getting ready: Go to the Welcome card of the Home stack.

1. **Go to the Birds stack.**

2. **Choose Save a Copy from the File menu.**

3. To enter the new name, type `Birds.new` **and click Save.**

Make sure you're in the HyperCard folder.

As soon as you start typing the new name, the old one disappears.

```
⊟:HD:HyperCard:
7263 free of 20860 k.          ( Volumes )
 □ Help                    ⇧    ( New Folder )
 □ Home
 ⊞ HyperCard.IIGS
 □ Stacks                        ( Open )
 □ Tour                          ( Close )
                          ⇩
Save copy of stack in:          ( Save )
Birds.new                       ( Cancel )
```

Click Save after you've typed the name.
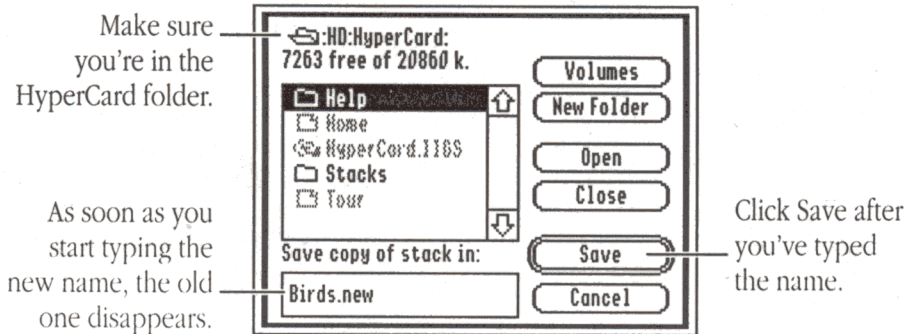
You now have two copies of the same file on your disk: Birds and Birds.new. You're still looking at the original Birds stack.

4. Go Home.

Click the Home button *or* choose Home from the Go menu *or* press ⌘-H.

Adding a new button to the Home stack

To make it easier to open your new stack, you'll create a new button on the first card of the Home stack that takes you to the new stack.

Getting ready: Go to the Welcome card of the Home stack.

1. Click the Create QuickLink button on the Welcome card.

A directory dialog box appears.

```
artz │ HyperCard IIGS
     │ Create QuickLink...  ── Click here.
     │ User Preferences
```

The Create QuickLink button on the Home cards allows you to create new buttons that can take you to stacks.

2. **Double-click the name "Birds.new."**

   The new button appears, flashing, in the middle of the card.

3. **Drag the new button into position:**
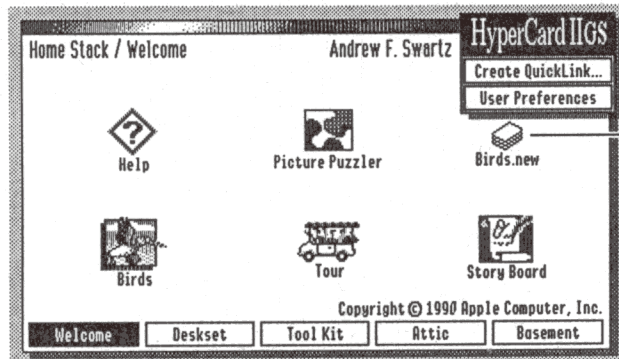
Drag the new button here.

> If you make a mistake—either by choosing the wrong stack or by moving the new button to an inconvenient location—you can correct the mistake by deleting the button: Choose the Button tool (⊂⊃) from the Tools menu; click the button once; press the Delete key; then choose the Browse tool (☜). To try again, go back and start with step 1.

4. **Try the new button.**

   Click the new Birds.new button. Your new stack opens.

Chapter 6: Tinkering With Stacks

Backgrounds

If you look at the pictures in "The Plan" at the beginning of this chapter, you'll notice there are a lot of changes to make. If you had to make those changes on each of the eight cards in the stack, it would take a long time.

Fortunately, thanks to the HyperCard concept of *background,* you only have to make the changes once. In the two exercises in this section you'll learn more about backgrounds and how to distinguish what's in the background from what's on the card.

Examining a background

A background contains the elements that a number of cards have in common. This exercise illustrates the concept.

Getting ready: Make sure you're viewing the Birds.new stack.

1. **Click the right arrow button a few times to see what the different cards have in common.**

   Notice that the cards in this stack have more similarities than differences. In fact, about all that changes from card to card is the text and the picture of the bird. The rest—the buttons, the arrangement of the fields, and the blue paint—stays the same. That's the idea of a background. A background is the sum of all the things the cards have in common.

   ❖ *Note:* You may notice that the colors in the background change slightly from card to card. That's because each card uses a slightly different color set to make the pictures of the birds more realistic. See Chapter 6 of the *HyperCard IIGS Reference* for more information about color sets. ❖

2. Choose Background from the Edit menu.
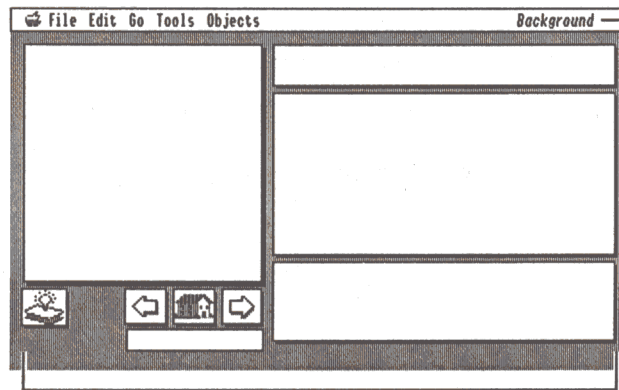
The word *Background* in the menu bar reminds you that you're viewing the background.

Notice that there's no text and no picture of a bird. The text and the picture are on the card, not the background.

When you choose the Background command, HyperCard hides the card and shows just the background.

3. Choose Background from the Edit menu again.

(If you prefer, you can use the keyboard shortcut ⌘-B.) Choosing the command a second time lets you see the card again. The word *Background* disappears from the menu bar.

4. Choose Bkgnd Info from the Objects menu.

HyperCard displays a dialog box with information about the background you're viewing.

Backrounds often have names. This one is called Bird Template.

This background is shared by eight cards, one for each of the birds.

This background contains four fields: Name, Description, Habitat, and Card Number.

This background contains four buttons: Home, left arrow, right arrow, and the light bulb. (The button that plays the bird's sound is on the card layer, not the background layer.)

Click here to close the Info box.

Bkgnd Name: Bird Template

Bkgnd ID: 2766. Shared by 8 cards.

Contains 4 background fields.

Contains 4 background buttons.

☐ Can't Delete

☐ Don't Search

[Script...] [Colors...] (OK) (Cancel)

5. Click Cancel.

An experiment: cards versus backgrounds

To give you a better understanding of the difference between a card and a background, these two exercises have you spray-paint a spot on the card and then in the background.

Spray-painting a card

In this exercise you'll spray-paint a card and discover that the change is visible on that card only.

Getting ready: Make sure you're viewing the Birds.new stack.

1. Go to the first card.

Choose First from the Go menu.

2. Choose the Spray tool ( ) from the Tools menu.

3. **Carefully spray-paint a small area as shown in the figure.**

△ **Important:** Don't paint too close to the picture of the bird, because that'll make it hard to erase the spray paint. △

Carefully spray-paint here by holding down the mouse button and moving the mouse.
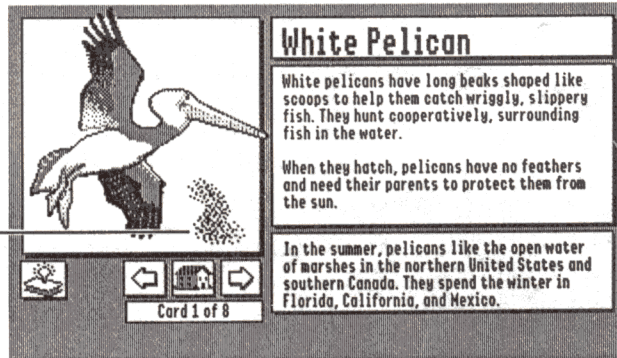
4. **Choose the Browse tool (🖑) from the Tools menu.**

   If you like shortcuts, you can press ⌘-Tab whenever you want to select the Browse tool.

5. **Look at the next card and then return to the first card.**

   Click the right arrow and then the left arrow. Notice that the spray paint appears only on the card on which you painted it.

6. **Choose the Eraser tool (⌦) from the Tools menu.**

7. **Erase your spray paint.**
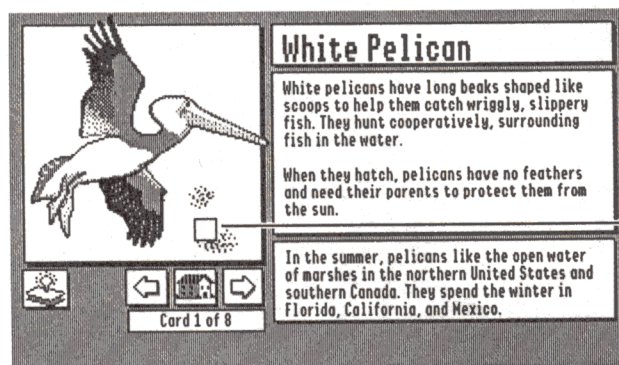
The Eraser tool erases any paint underneath the pointer as long as the mouse button is down.

Spray-painting a background

Now you'll make the same mark in the background and discover that the change is visible on every card.

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

   The Background command hides the card's text and allows you to edit the background. It also displays the word *Background* in the menu bar.

2. **Spray-paint the same place as before.**

   Choose the Spray tool (🖌) from the Tools menu again and paint inside the frame where the bird pictures go.

▲ **Warning:** Be careful to spray-paint only in this area. If you accidentally get paint anywhere else, immediately choose Undo from the Edit menu. Otherwise, you'll find it hard to erase the paint. ▲

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

   The word *Background* disappears from the menu bar.

4. **Choose the Browse tool (☝) from the Tools menu and look at the next few cards.**

   Click the right arrow a few times. Note that by painting the background rather than the card, your change affects all the cards.

5. **Being careful not to erase the bird, choose the Eraser tool (▱) from the Tools menu and try to erase your spray paint. (You won't be able to erase it.)**

   Because the paint is in the background rather than on the card, you must choose the Background command before you can erase it.

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

The word *Background* appears in the menu bar.

7. **Erase your spray paint.**

Now you can erase the spray paint. But be careful not to erase any of the other paint in the background. If you do accidentally erase something other than your spray paint, immediately choose Undo from the Edit menu.

8. **Choose the Browse tool (🖑) from the Tools menu again.**

You need the Browse tool to click buttons and type text. Choosing the Browse tool also takes you out of the background—the word *Background* disappears from the menu bar.

Summary: card layer versus background layer

In short, what you see when you look at a card is a composite of two layers: the *background layer* (which contains the elements shared by all the cards) and the foreground or *card layer* (which contains only the elements unique to each card).

Chapter 6: Tinkering With Stacks
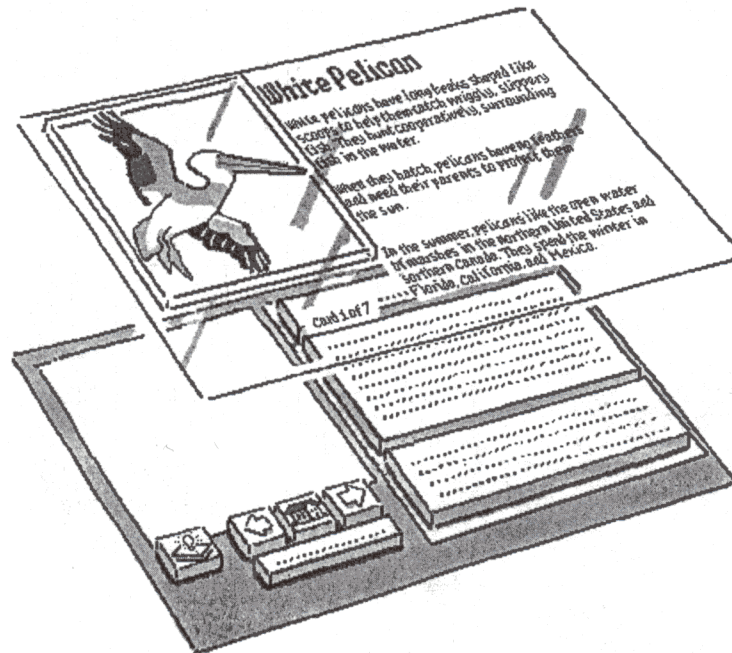
Tinkering with buttons

There's no special order in which you have to make changes. For the sake of convenience, the exercises that follow start with the changes to buttons.

Before you begin, you might want to look at the section called "The Plan" at the beginning of this chapter to see all the changes that you need to make.

Deleting the light bulb button

You'll start by deleting the light bulb button. In general, the way you delete things on the Apple IIGS is to select them and then press the Delete key. The same is true for deleting HyperCard buttons.

Getting ready: Make sure you're viewing the Birds.new stack.

1. **Choose the Button tool (⊃) from the Tools menu.**

   To modify buttons, you must use the Button tool. While you use the Button tool, the pointer will be arrow-shaped and you won't be able to type in fields or make buttons do what they're programmed to do.

2. **Click the light bulb button *once* to select it.**

   When a button is selected, it's framed by a moving dashed line, sometimes called "marching ants."

   Notice that the button doesn't do what it normally does—it doesn't give you an overview of the stack. Instead, clicking a button with the Button tool selects it.

3. **Press the Delete key.**

   The button disappears.

   ❖ *A good question:* Since this button was in the background, why didn't you first have to choose the Background command to delete it? You could do just that, but as a shortcut, HyperCard allows you to edit existing buttons and fields without first choosing the Background command. ❖

Moving the buttons

Next you'll move the Home button and the two arrow buttons. (You'll also take a look at some instructions written in the HyperTalk script language.)

Getting ready: Make sure you're viewing the Birds.new stack and using the Button tool (⊂⊃) from the Tools menu.

1. Drag the right arrow button to its new location.

White Pelican

White pelicans have long beaks shaped like scoops to help them catch wriggly, slippery fish. They hunt cooperatively, surrounding fish in the water.

When they hatch, pelicans have no feathers and need their parents to protect them from the sun.

In the summer, pelicans like the open water of marshes in the northern United States and southern Canada. They spend the winter in Florida, California, and Mexico.

Card 1 of 8

Make sure you're using the Button tool, then place the pointer over the middle of the button and drag it here.

2. Drag the Home button and the left arrow button to their new locations.

Remember to drag the buttons by their middles.

White Pelican

White pelicans have long beaks shaped like scoops to help them catch wriggly, slippery fish. They hunt cooperatively, surrounding fish in the water.

When they hatch, pelicans have no feathers and need their parents to protect them from the sun.

In the summer, pelicans like the open water of marshes in the northern United States and southern Canada. They spend the winter in Florida, California, and Mexico.

Card 1 of 8

Place the buttons here.

3. **Click the Home button once to select it.**

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

   A dialog box opens.

5. **Click the Script button in the dialog box.**

   Buttons usually have scripts that tell them what to do when they're clicked. You don't have to know anything about scripts, but here's one for the sake of curiosity:

The script says that when the button is clicked, HyperCard should open the Home stack using a special visual effect.

```
Script of Bkgnd button ID 9 = "Home"
on mouseUp
  visual effect iris close
  go home
end mouseUp
```

Find   Print   OK   Cancel
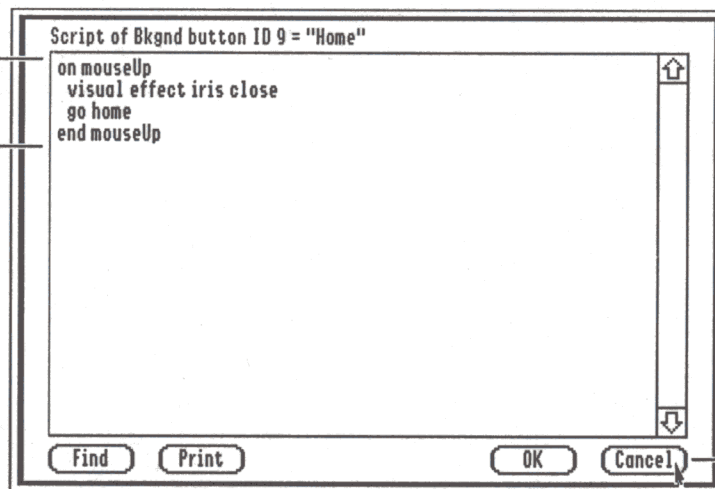
After you're finished looking, click the Cancel button.

6. **Click the Cancel button to close the script.**

Rearranging the arrow buttons

Now you'll change the appearance of all three buttons by changing their style from Shadow to Transparent.

Getting ready: Make sure you're viewing the Birds.new stack and using the Button tool (○).

1. **Double-click the left arrow button to open its Info dialog box.**

   Double-clicking a button with the Button tool is a shortcut for selecting it and choosing the Button Info command.

2. **Use the pop-up Style menu to change the style from shadow to transparent.**

Hold the mouse button down over the word "shadow" . . .

Button Name: **Prev**	transparent
Bkgnd button number: 2 Bkgnd	opaque
☐ Show Name Style:	rectangle
☒ Auto Hilite	/shadow
☐ Share Hilite Family:	round rect
	check box
	radio button

Icon...

Link To...   Font...

Script...   Colors...   OK   Cancel

. . . then drag up to select the word "transparent."
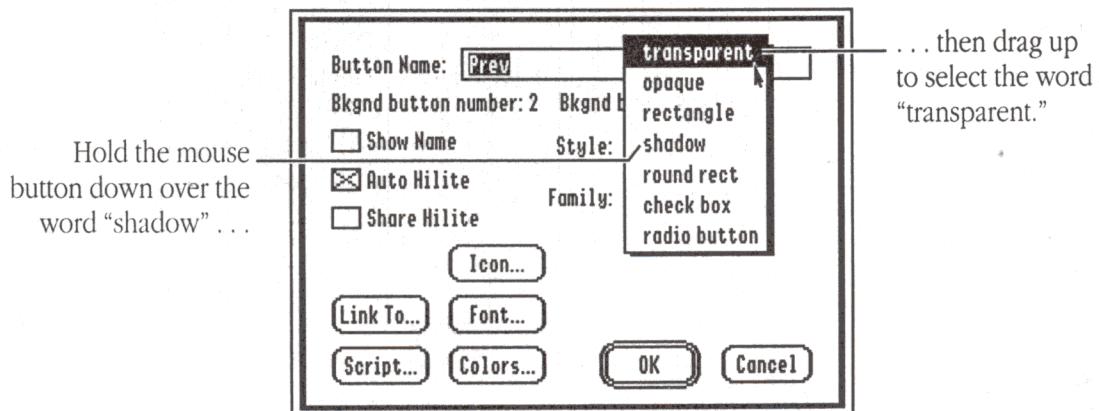
3. **Click OK.**

4. **Similarly, open the Home button's Info dialog box, set its style to transparent, and then click OK.**

5. **Repeat the process a third time with the right arrow button.**

   Open the right arrow button's Info dialog box, set its style to transparent, and click OK.

Adding a button linked to the Calendar stack

Next you'll add a button that can take you to the Calendar stack so you can quickly enter appointments to go birdwatching.

Creating the button

Start by creating the button and specifying its appearance.

1. **Choose New Button from the Objects menu.**

   HyperCard places the button in the middle of the card.

2. **Double-click the button to open its Info dialog box.**

Chapter 6: Tinkering With Stacks

3. Set the button's attributes as follows:

Type Calendar to name the button.

Click here to turn off the Show Name feature.

Button Name: Calendar

Card button number: 2   Card but

☐ Show Name   Style:
☒ Auto Hilite
☐ Share Hilite   Family:

transparent
opaque
rectangle
shadow
round rect
check box
radio button

Use this pop-up menu to choose the transparent style.

[Icon...]

[Link To...] [Font...]

[Script...] [Colors...]   [OK]   [Cancel]
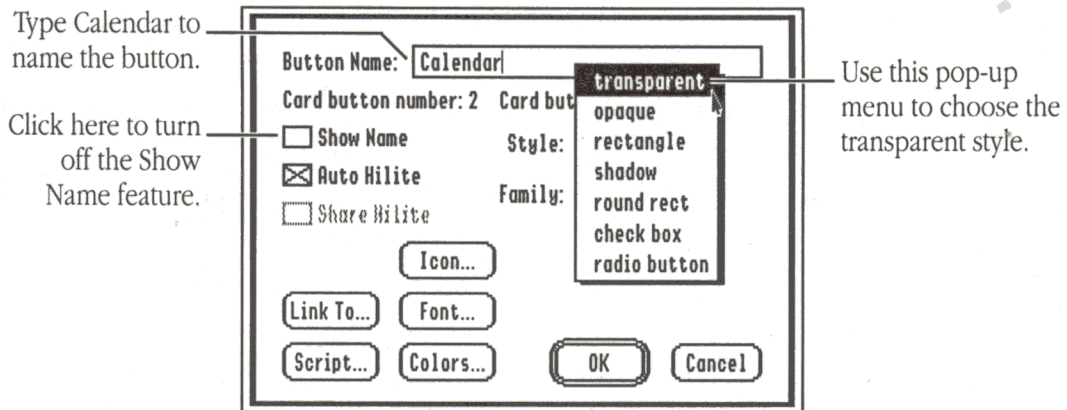
4. Click the Icon button.

5. Select the Calendar icon and click OK.

ID: 1900 "Calendar" from "HOME"

Use the scroll bar to find the Calendar icon.

Click the icon to select it . . .

[View] [Import]   [None] [Cancel] [OK]   . . . then click OK.
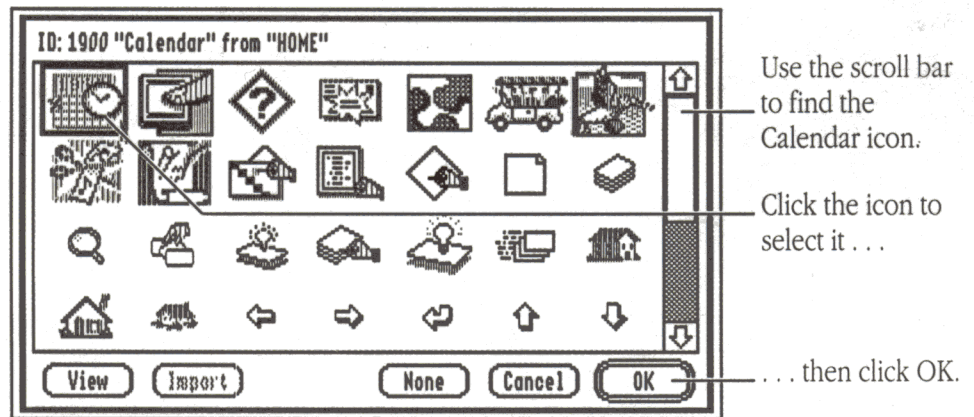
The icon appears partially clipped off inside the new button.

6. Click OK again.

7. Move the button into place and resize it.

You can move the button by dragging its middle. You can change the size of the button by dragging any one of its corners.

White Pelican
White pelicans have long beaks shaped like scoops to help them catch wriggly, slippery fish. They hunt cooperatively, surrounding fish in the water.
When they hatch, pelicans have no feathers and need their parents to protect them from the sun.

In the summer, pelicans like the open water of marshes in the northern United States and southern Canada. They spend the winter in Florida, California, and Mexico.

Card 1 of 8

Move the button to
here and adjust its size.

It's OK if the button overlaps the bottom field a little. You'll fix that by the end of the chapter.

Creating the link

So far, you have a beautiful button that doesn't do anything. By creating a link you'll make the button work.

Getting ready: Make sure you still have the Button tool (○) selected.

1. Double-click the new button to open its Info dialog box.

2. **Click the Link To button.**

   When you click the Link To button, HyperCard needs to know which card or stack you wish to make the link to. To let you know it's waiting for you to complete the action, it displays the Link To box:

   ```
   ┌─────────────────────────────────────────┐
   │ ▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌          │
   │ Link to:                                 │
   │ ( This Card )  ( This Stack )  ( Cancel )│
   └─────────────────────────────────────────┘
   ```

   You specify that you want a link to the Calendar stack by opening the Calendar stack, as described in the next steps.

3. **Go to the Deskset card in the Home stack.**

   Choose Home from the Go menu and click the Deskset button. (You can click buttons even though the Link To box is displayed. If it's ever in the way, you can move it by dragging its top bar.)

4. **Click the Calendar button to open the stack.**

5. **Click "This Stack" to complete the link.**

   Click here. ──────
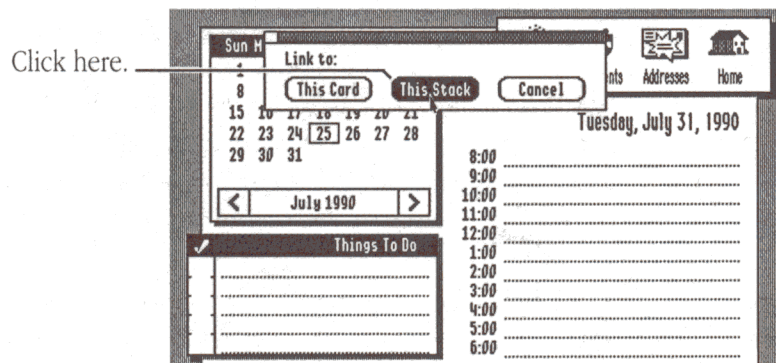
   You return to the Birds.new stack.

Testing the button

In this exercise you'll test the button and discover that you placed the button on the card instead of in the background. In the next exercise you'll correct the mistake.

1. **Choose the Browse tool (✋) from the Tools menu.**

2. **Click the new button to test it.**

   The Birds.new stack should close and the Calendar stack should open.

   If the button did *not* work correctly, return to the Birds.new stack, choose the Button tool (⬭), click your button once, and press the Delete key. Then start this section ("Adding a Button Linked to the Calendar Stack") again.

3. **Choose Back from the Go menu until you return to the Birds.new stack.**

   You may have to choose the Back command twice.

4. **Go to the next card by clicking the right arrow button.**

   Whoops! If you followed the directions in the previous section, you've discovered that your new button isn't on the next card. Why? You created the button on the card instead of in the background.

   That's one of the most common mistakes stack authors make. The next exercise will show you how to correct it.

5. **Go back to the card with the Calendar button on it.**

   Click the left arrow button.

Moving the button from the card to the background

To move the button from the card to the background, you need to select the button, cut it, go to the background, and paste it.

1. **Choose the Button tool (○) from the Tools menu.**

2. **Click the Calendar button to select it.**

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

   The button disappears.

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

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

6. **Choose the Browse tool (✋) from the Tools menu.**

   You leave the background and the word *Background* disappears from the menu bar.

7. **Go to the next card to make sure it worked.**

   The button now appears on all the cards.

Because creating objects on the card instead of the background (or vice versa) is one of the most common mistakes stack authors make, you might want to fold down the corner of this page so you can find these instructions easily. Remember this strategy to correct the mistake: select, cut, background, paste.

Copying the Find button

One easy way to enhance your stack is to borrow work done by others. In this section you'll add a button by copying it from the Button Ideas stack. The new button will automatically choose the Find command.

Copying the button

Start by finding and copying the button.

1. **Choose the Browse tool (🖑) from the Tools menu.**

2. **Go Home.**

3. **Go to the Tool Kit card.**

   Click the Tool Kit button at the bottom of the card.

4. **Click Button Ideas.**

   The Button Ideas stack contains buttons you can use in your stack.

5. **Click Help and Information to get to the card with the Find button on it.**

6. **Choose the Button tool (⊂⊃) from the Tools menu.**

7. **Click the Find button once to select it.**

Click here once to select the — Find button.
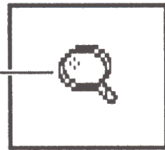
8. **Choose Copy Button from the Edit menu.**

   Be careful to select the Copy Button command and *not* the Cut Button command.

Pasting the button

Now return to the Birds.new stack, paste the button, and move it into place.

1. **Use the Back command to return to the Birds.new stack.**

   Keep choosing the Back command from the Go menu until you return to the Birds.new stack. (You will probably need to choose the Back command four times.)

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

   Make sure you see the word *Background* in the menu bar.

   Since this button should be shared by all the cards in the stack, you should paste it in the background.

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

   The button appears in the background.

4. **Double-click the button to open its Info dialog box.**

5. **Change the style to shadow, then click OK.**

   Use the pop-up Style menu to change the style and then click OK.

6. Move the button into place and resize it.

Move the button here and adjust its size.

White Pelican

White pelicans have long beaks shaped like scoops to help them catch wriggly, slippery fish. They hunt cooperatively, surrounding fish in the water.

When they hatch, pelicans have no feathers and need their parents to protect them from the sun.

In the summer, pelicans like the open water of marshes in the northern United States and southern Canada. They spend the winter in Florida, California, and Mexico.

Card 1 of 8

7. Choose the Browse tool (☝) from the Tools menu to see how it all looks.

You leave the background layer, and the word *Background* disappears from the menu bar.

Tinkering with fields

Now that you have the buttons pretty much as they should be, it's time to start on the fields. Once again, you might want to go back and look at the section called "The Plan" at the beginning of the chapter to see the changes that you need to make.

Deleting the card number field

The plan doesn't call for a Card Number field, so you'll delete it in this exercise. Deleting HyperCard fields is similar to deleting HyperCard buttons and other objects in Apple IIGS programs. You select the object and then press the Delete key.

Getting ready: Make sure you're in the Birds.new stack.

1. Choose the Field tool (▦) from the Tools menu.

2. Click the Card Number field once.

Click here *once* to
select the field. _____
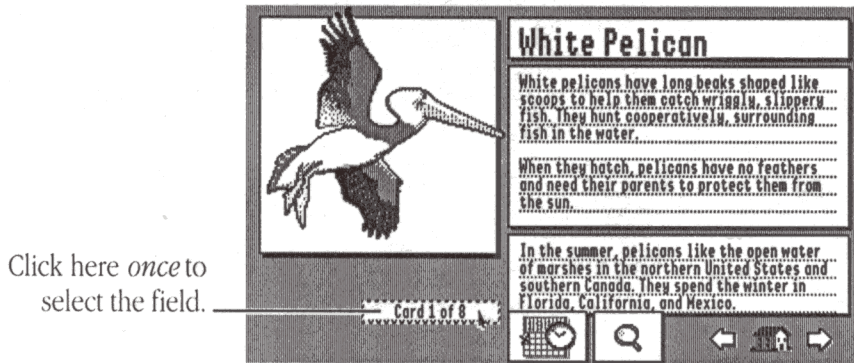
As a shortcut, HyperCard allows you to select and manipulate background fields even when you're not in the background.

3. Press the Delete key.

When you delete a background field, you also delete all the text typed into it for *every card in the stack* that shares the same background. Because deleting a background field by mistake can be a catastrophe, HyperCard asks if you're sure.

▲ **Warning:** Make sure you've selected the right field before you delete it. You cannot undo the deletion. ▲

4. Click Delete to confirm your decision.

Modifying the bird name field

In this exercise you'll change the font, style, and color of the bird name field.

Getting ready: Make sure you're still in the Birds.new stack and that you still have the Field tool (▭) selected.

1. **Double-click the Bird Name field at the top of the card to open its Info dialog box.**

   This is the same as selecting the field and choosing Field Info from the Objects menu.

2. **Click the Font button.**

   The Text Style dialog box appears.

3. **Set the attributes as described below:**

Click Venice.

Use the pop-up menu to choose Center Text.

Finally, click OK.

Double-click here and type 14.
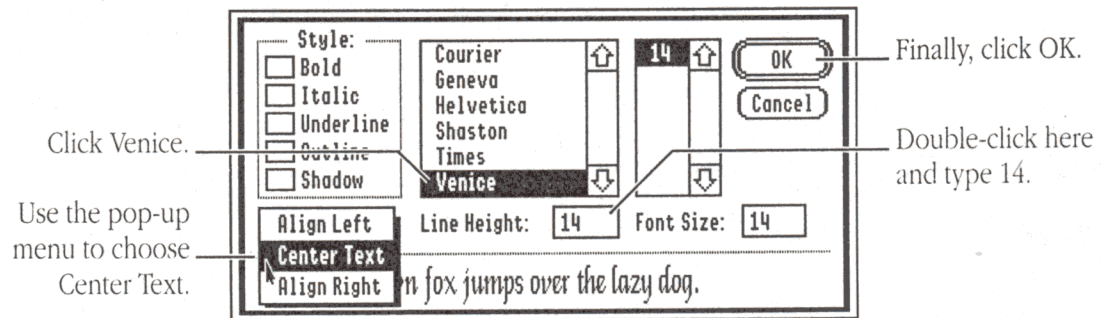
4. **Click the Colors button.**

5. **Set the text to be purple, then click OK.**

Click this color.

Then click OK.

Chapter 6: Tinkering With Stacks
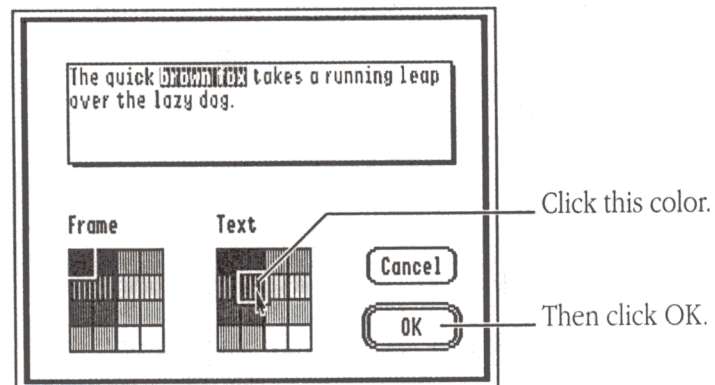
6. **Click OK one more time.**

The Bird Name field should now look like this:
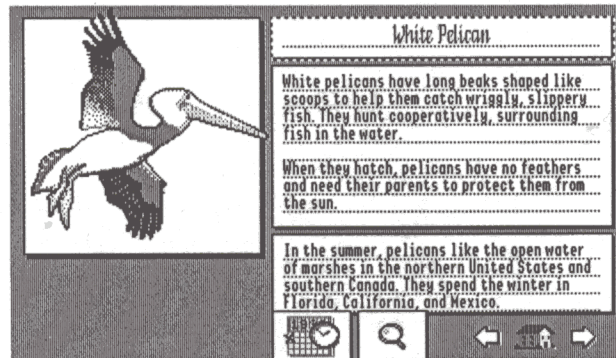
Moving the fields closer together

Since there's not quite enough room at the bottom for the row of buttons, you'll move the fields a little closer together in this exercise.

Getting ready: Make sure you're still in the Birds.new stack and that you still have the Field tool (▱) selected.

1. **Make the Bird Name field a little smaller by dragging its corner.**
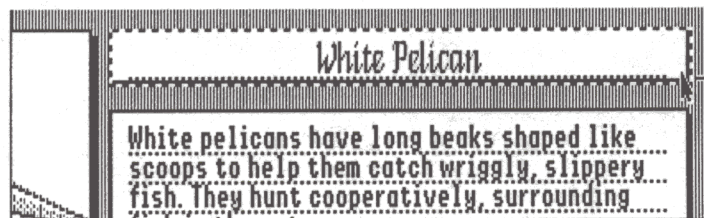
While holding down the Shift key, drag this corner of the field up until the field is this size.

Holding down the Shift key allows you to adjust the field's height without changing its width (and vice versa).

> If you make a mistake, try using the Undo command in the Edit menu.

2. Drag the Description field up by dragging its middle.

White Pelican

White pelicans have long beaks shaped like scoops to help them catch wriggly, slippery fish. They hunt cooperatively, surrounding fish in the water.

When they hatch, pelicans have no feathers and need their parents to protect them from the sun.

In the summer, pelicans like the open water of marshes in the northern United States and southern Canada. They spend the winter in Florida, California, and Mexico.
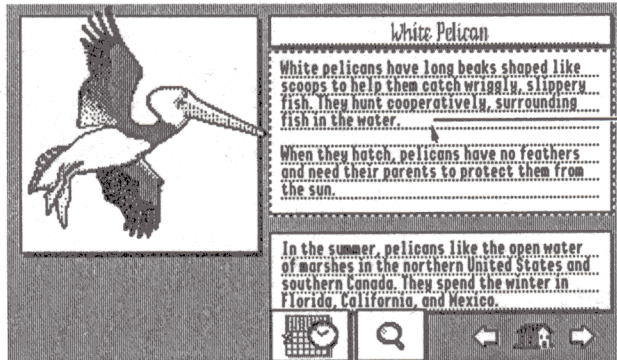
While holding down the Shift key, drag the middle of the field up until the field is here.

Holding down the Shift key allows you to move the field up and down without moving it sideways (and vice versa).

Remember the general rule that, on the Apple IIGS, to move something you drag its middle; to change its shape you drag its corner: middle to move and corner to change.
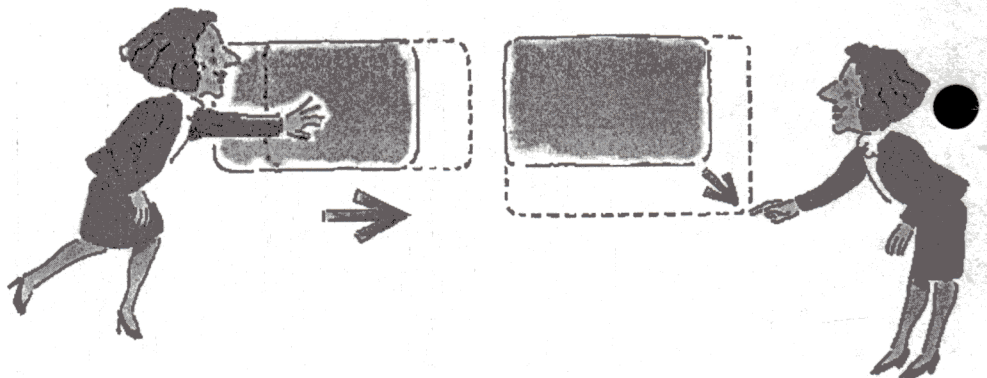
3. Drag the Habitat field up in the same way.
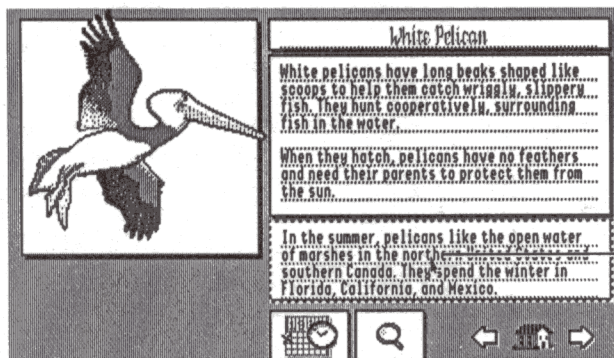
While holding down the Shift key, drag the middle of the field up until the field is here.

Creating the Notes field

The plan for the Birds.new stack calls for a field in which you can type your own notes. In the next two exercises, you'll create the field and test it by filling in some notes.

Creating the field

In this exercise you'll create the field.

1. Choose Background from the Edit menu.

To put the Notes field on all the cards, you must create it in the background. You can confirm you're working in the background by looking for the word *Background* in the menu bar.

2. Choose New Field from the Objects menu.

HyperCard places a new field in the middle of the window.

3. Double-click the new field to open its Info dialog box.

4. Use the pop-up Style menu to set the style to scrolling.

5. Type `Notes` **to name the field.**

6. Click OK.

7. **Resize the field and move it into position.**

Change the
field's size and
move it here. ————
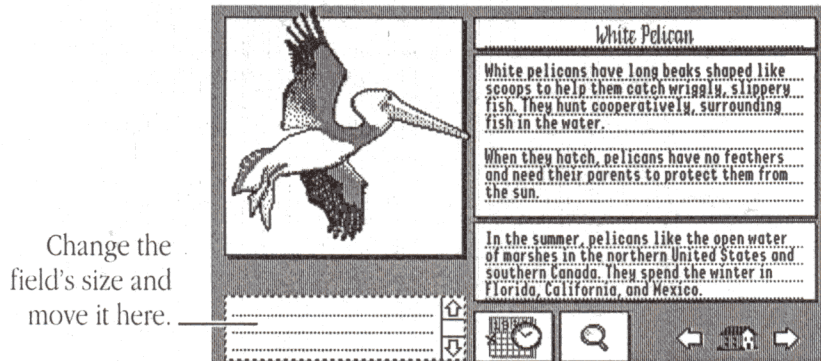
The field should be as wide as the bird's picture frame and just
tall enough to fit three lines of text.

Using the field

In this exercise you'll type some dates in your new field to test it.

1. **Choose the Browse tool (🖑) from the Tools menu.**

   The word *Background* disappears from the menu bar.

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

   You return to the white pelican's card, the first in the stack.

3. **Click once in your new field.**

   The insertion point begins to blink.

4. **Type the following:** `The pelican reminds me of a`
   `stork. You can almost picture a sling hanging`
   `out of its mouth and a baby hanging out of the`
   `sling.`

   Notice that the field automatically scrolls. You can use the scroll
   arrows to move back and forth through the text.

5. **Move to the next card.**

   Click the right arrow.

6. **Click your new field.**

7. **Type:** `I sighted a bald eagle near Seattle on`
   `April 26, 1990.`

Creating the label for the Notes field

According to the plan, the word "Notes" should be above the Notes field. When you need to put text on the background, you have two choices: you can either paint it or use a *shared-text* field. (See Chapter 5 of the *HyperCard IIGS Reference* for details on the considerations involved in the choice.) In this case you'll make the label a shared-text field.

Duplicating a field

Instead of creating the field from scratch, you'll make a duplicate of the Notes field and modify the duplicate as necessary.

1. **Choose the Field tool (▦) from the Tools menu.**

2. **Press and hold the Option and Shift keys while you drag the field up.**

While holding down the Option and Shift keys, drag the Notes field by its middle and place the resulting new field here.
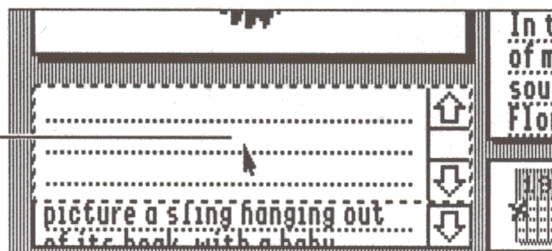
Dragging the field while you hold down the Option key creates an exact duplicate of the field. Dragging the field while you hold down the Shift key restricts the movement of the field to either straight up and down or straight left and right. Dragging the field while you hold down both keys produces both effects.

△ **Important:** Be careful not to duplicate the field more than once. Every time you click the field while the Option key is pressed you create another field, so every false start creates an extra field. Delete any extra fields by selecting them and then pressing the Delete key. △

3. **Double-click the new field to open its Info box.**

4. **Type** `Notes Label` **to name the field.**

5. **Click Shared Text.**

   When you click Shared Text, the Don't Search check box is automatically selected as well.

6. **Use the pop-up Style menu to change the style from scrolling to transparent.**

7. **Click Font.**

8. **Click Bold and then click OK in the Text Style box and again in the Info box.**

9. **Adjust the size of the Notes Label field:**
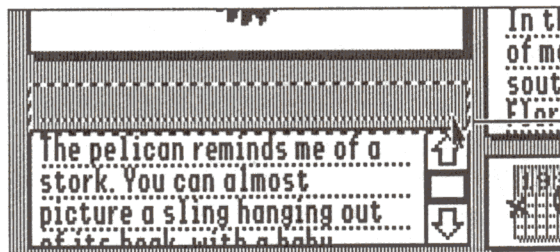
While holding down the Shift key, drag this corner up so there's just enough room for one line of text.

Putting the text in a shared-text field

You edit text in a shared-text field just as you edit text in other fields. However, since you don't want anyone to change the text, it's a good idea to lock it.

Getting ready: Make sure you're viewing the Birds.new stack.

1. **Choose the Browse tool (🖑).**

   You need the Browse tool to type in the field.

2. **Click once in the new field.**

Click once here.
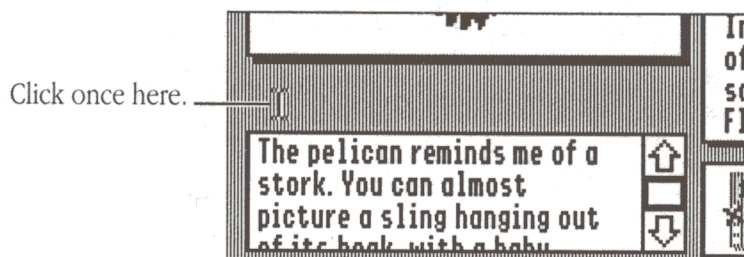
The insertion point will blink in the new shared-text field and the field will turn white while you're typing in it.

3. **Type** Notes

4. **Choose the Field tool (▦) from the Tools menu.**

5. **Double-click the new field to display its Info box.**

6. **Click the Lock Text box and click OK.**

   An X in the Lock Text box indicates the option is selected.

7. **Choose the Browse tool (🖑) from the Tools menu.**

8. **Look at a few cards to make sure the text is in fact shared.**

   Click the left and right arrow buttons to move forward and back.

Finishing touches

You're finished with the important changes to the stack. Now it's time for a few final adjustments to make the stack look better. You'll perform three tasks: Arranging the buttons a little more precisely; drawing a decorative box around the three transparent buttons; and flipping the cardinal to make it look better.

Getting ready: Make sure you're viewing the Birds.new stack.

1. **Choose the Button tool (⊙).**

2. **Arrange the buttons.**

   Now that you have more room, move the buttons like this:
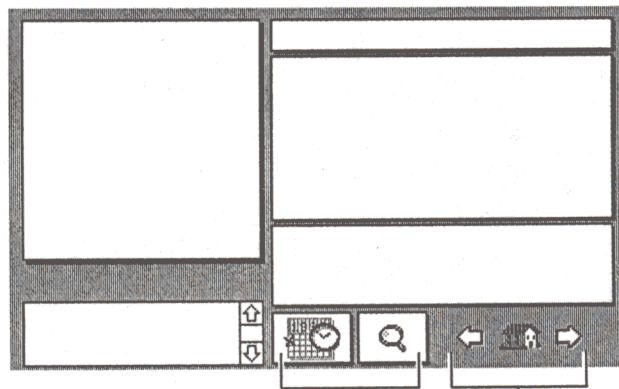
   Move these two buttons up a little.

   Move these buttons to the center, leaving plenty of room for the frame you are about to draw.

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

   The word *Background* appears in the menu bar.

4. **Choose the Rectangle tool (▢) from the Tools menu and draw a rectangle like this:**
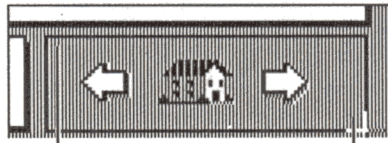
Starting here, hold down the mouse button . . .

. . . and drag here.

If you make a mistake, choose Undo from the Edit menu before trying again.

5. **Choose the Paint Bucket (◇) from the Tools menu.**

6. **Choose a color or pattern from the Patterns menu.**

For example, you could choose white to match the other two buttons on the same row:
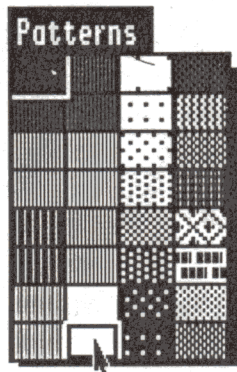
7. **Pour paint into your rectangle.**

Click anywhere
inside the rectangle.
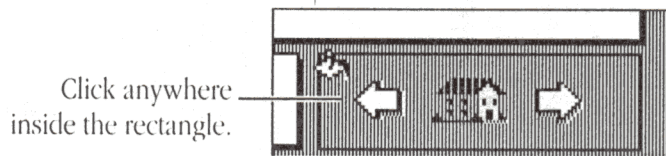
Remember, you can use the Undo command if you make a mistake.

8. **Choose the Browse tool (🖑).**

You automatically leave the background and the word *Background* disappears from the menu bar.

9. **Find the cardinal's card.**

Use either the Find command or the arrow buttons to find the cardinal.

10. **Choose the Selection tool (⊡) from the Tools menu and select the cardinal like this:**

Starting here, hold
down the mouse
button . . .

Northern Cardinal

Male cardinals have much brighter colors than females. The females' duller colors help camouflage them when they are nesting with the eggs.

Cardinals have been extending their natural range in the last century, moving farther and farther northward.

Cardinals live throughout the eastern United States. They don't migrate and do best where the winters aren't too harsh.

. . . and drag here.

11. **Choose Flip Horizontal from the Paint menu to flip the bird.**

12. **Choose the Browse tool (🖑) again.**

Chapter 6: Tinkering With Stacks

Experts ⊙ only

This section describes several shortcuts. If you'd prefer to move on to the next exercises, start the next chapter.

◆ **In the Birds stack, hold down the Option and ⌘ keys and while they're still pressed, click any button.**

> *HyperCard displays the button's script. Click the Cancel button to close the script.*

◆ **Tear off the Tools menu and choose the Browse tool (🖑). Hold down the ⌘ key and press Tab twice quickly. Then try holding down the ⌘ key and pressing Tab three times.**

> *Pressing ⌘-Tab twice chooses the Button tool (⬭). Pressing it three times chooses the Field tool (▱).*

◆ **Display the Message box. Type c and press Return. Repeat the experiment, first typing the letter s and then typing the letter b.**

> *Typing c displays the Card Info dialog box, just as if you had chosen the Card Info command from the Objects menu. The s message displays the Stack Info dialog box, and the b message displays the Bkgnd Info dialog box.*

◆ **Press Option-Tab once.**

> *Pressing Option-Tab opens the Tools palette. You can close it by pressing Option-Tab again.*

Creating New Stacks

In this chapter you'll build one stack from start to finish and create another one as well. In the process you'll review many of the other techniques you've learned in this book.

Starting from scratch

In this section you'll create a stack from scratch.

Designing the stack

The first step in creating a new stack is to design it. Start by thinking about who the stack is for and what the stack should do. For example, suppose you wanted to make an electronic memory book with interesting facts about your friends.

Your stack should be simple to use and easy to read. After thinking for a while, you sketch out this design:

Background art should look like a notebook to make the stack easier to understand.

Fields. You need room for the title of the stack, and your friend's name, hometown, and fun facts. You also need two labels.

Buttons. A few simple ones will do.
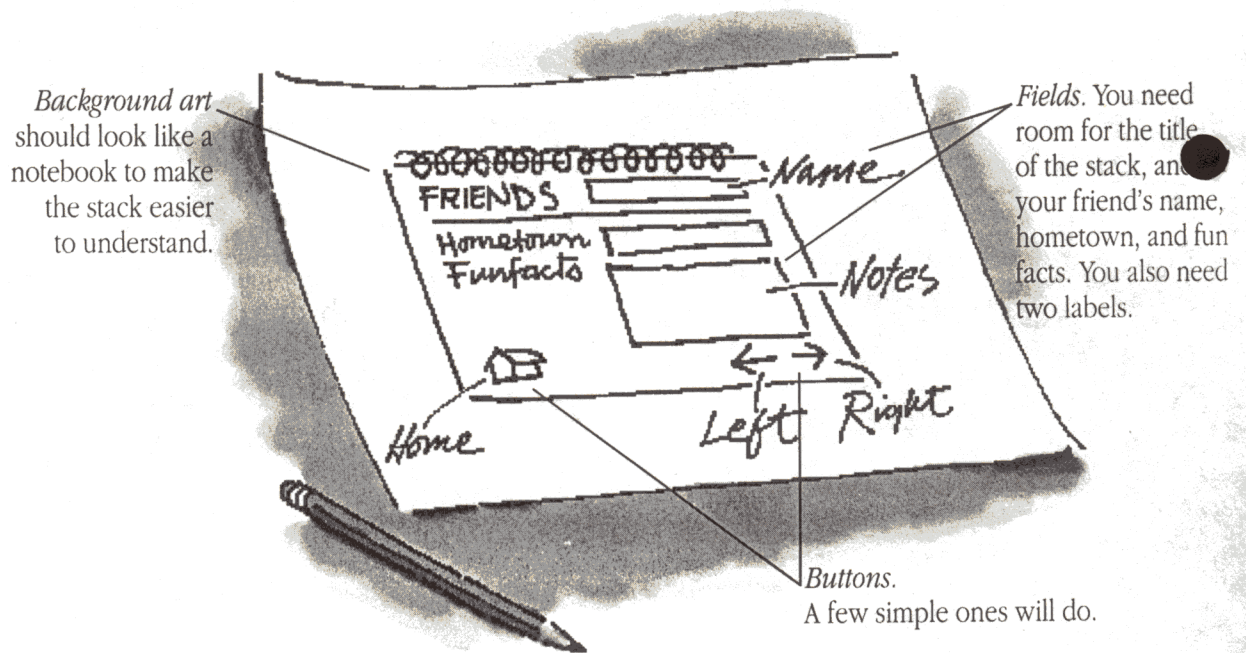
❖ *Note:* If you want to create professional-looking stacks, you should design them carefully. You may want to read Apple's *HyperCard Stack Design Guidelines*, published by Addison-Wesley. ❖

Starting a new stack

The first step is to create a new stack, as described in this exercise.

Getting ready: If you've set your user level to Authoring or Scripting, start now with step 1. Otherwise, increase your user level as described in "The User Preferences Card" in Chapter 4.

1. **Go Home.**

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

   The New Stack dialog box appears, as shown in step 4.

3. **Make sure you're in the Stacks folder.**

4. **Name the stack and choose your options as shown here:**

Make sure you're in the Stacks folder. → `:HD:HyperCard:Stacks:` 5972 free of 20860 K.

Addresses
ArtIdeas
Birds
ButtonIdeas
Calendar
IconEditor

Volumes
New Folder
Open
Close

Type `Friends` → New Stack Name: `Friends`

Create → Finally, click Create.

Cancel

Make sure this box is *not* checked. → ☐ Copy Current Background
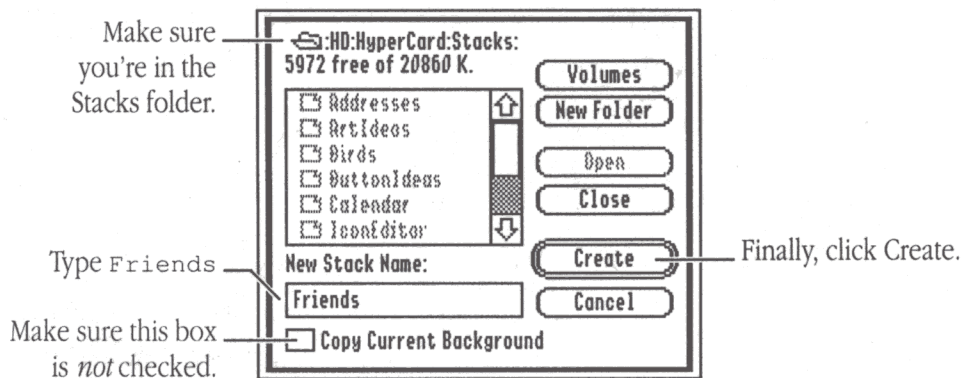
The new stack opens, absolutely blank.

Copying the background art

The background art for this stack is supposed to look like a spiral notebook. You could use the Paint tools to draw your own, but instead, this exercise will have you copy the art from the Art Ideas stack.

Getting ready: Make sure you're in the Home stack.

1. **Go to the Art Ideas stack.**

   Go Home, click the Tool Kit button at the bottom of the card, and then click the Art Ideas button.

2. Click the Background Art category.

Click here.
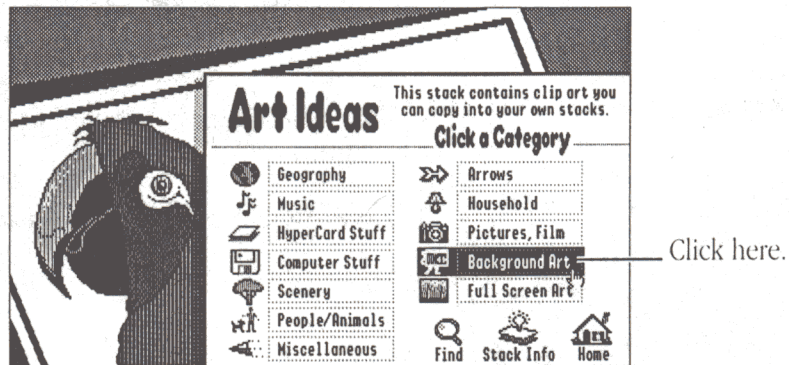
3. Choose Background from the Edit menu.

You enter the background and the word *Background* appears in the menu bar.

The artwork you want to copy is on the background.

4. Tear off the Tools menu.

Pull the menu down as if you were going to choose a command, but keep dragging past the bottom. Place the Tools palette wherever you like. (If you need more details, see "Tools of the Trade" in Chapter 6.)

5. Double-click the Selection tool (⬚) in the Tools palette to select all the art.

A moving dashed line surrounds the card, indicating that the art is selected.

6. Choose Copy Picture from the Edit menu.

7. Return to your new stack by using the Open Stack command.

Choose Open Stack from the File menu and double-click the name "Friends" to open the stack you're working on.

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

   Confirm that you're working in the background by making sure the word *Background* is in the menu bar.

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

   You've finished the background art.

Copying the background buttons

In this section you'll put three buttons—Home, left arrow, and right arrow—in the background. You'll copy them from the Addresses stack.

The left arrow button

Start by copying the left arrow button.

Getting ready: You should have the Friends stack open.

1. **Choose the Browse tool (🖑).**

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

3. **Double-click Addresses.**

   The Addresses stack opens.

4. **Choose the Button tool (○) from the Tools menu.**

5. **Click the left arrow button once to select it.**

   A moving dashed line surrounds the selected button.

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

7. **Open the Friends stack using the Open Stack command.**

   Choose the Open Stack command from the File menu and double-click Friends.

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

   Make sure you see the word *Background* in the menu bar.

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

    The button appears. You'll move it into place in a later exercise.

The right arrow button

Continue by copying the right arrow button from the Addresses stack to the Friends stack.

Getting ready: Make sure you're still using the Button tool (⊖).

1. **Open the Addresses stack.**

    Just as you did in the last exercise, choose Open Stack from the File menu and double-click Addresses.

2. **Click the right arrow button once to select it.**

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

4. **Return to the Friends stack.**

    Choose the Open Stack command from the File menu and double-click Friends.

5. **Paste the button on the background.**

    Choose Background from the Edit menu and then choose Paste Button from the Edit menu.

The Home button

Finally, copy the Home button.

Getting ready: Make sure you're still using the Button tool (⊖).

1. **Go back to the Addresses stack using the Open Stack command.**

2. **Click the Home button once to select it.**

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

4. **Return to the Friends stack using the Open Stack command.**

5. **One last time, paste the button on the background.**

   Choose Background from the Edit menu and then choose Paste Button from the Edit menu.

6. **Double-click the Home button to open its Info dialog box.**

7. **Click the Icon button.**

Click here. ———

Button Name:	Home

Bkgnd button number: 3   Bkgnd button ID: 3

☐ Show Name   Style: [transparent]

☒ Auto Hilite   Family: [0 (none)]

☐ Share Hilite

[Icon...]

[Link To...] [Font...]

[Script...] [Colors...]   (OK) (Cancel)

8. **Change the icon.**

ID: 1022 "Homey Home" from "HYPERCARD.IIGS"

If necessary, use the scroll bars to find the small Home icon.

Click the icon to select it . . .

(View) (Import)   (None) (Cancel) (OK)

. . . then click OK.
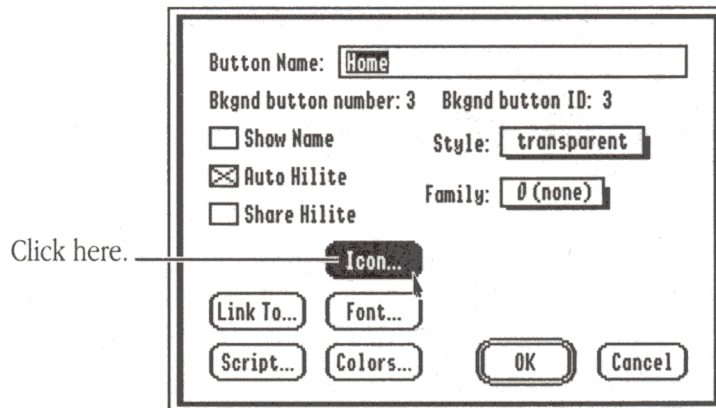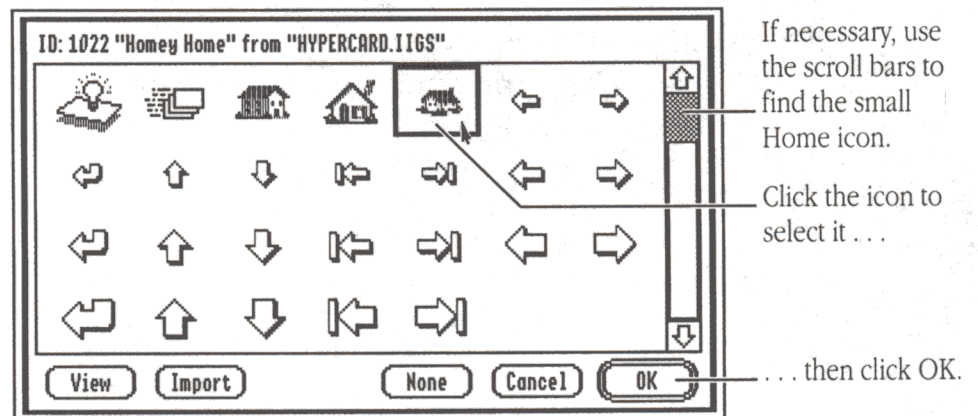
9. **Finally, click OK in the Info dialog.**

Arranging the buttons

Now you need to move the buttons into position.

Getting ready: Make sure you're still viewing the Friends stack and that you still have the Button tool (⌐) selected.

1. Make the Home button smaller.

Drag its corner to make the button just a little bigger than the icon in its center.

2. Move the buttons into position:

Move the buttons to these locations. (Remember to drag them by their middles, *not* their corners.)
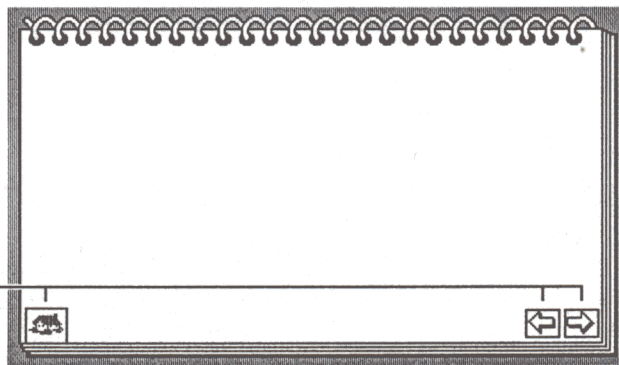
Creating the background fields

In this section you'll create the six background fields for your new stack. Three will be shared-text fields—a large one for the stack's title and two small ones for the labels "Hometown" and "Fun Facts." The other three fields are for your friend's name, where your friend lives, and some fun facts about your friend.

The stack's title

In this exercise you'll create a shared-text field for the stack's title.

Getting ready: Make sure you're still viewing the Friends stack and working in the background.

1. Choose New Field from the Objects menu.

The new field appears in the middle of the window.

Chapter 7: Creating New Stacks

2. **Double-click the new field to open its Info dialog box.**

3. **Click the Shared Text check box to select it.**

   This option specifies that this field will have the same text on every card.

4. **Click the Font button and set the text style for the field as follows:**

Click 16.

```
┌─ Style: ─────┐  ┌─────────────┐  ┌─8─┐ ⇧  ╭──────╮        . . . and then
│ ☐ Bold        │  │ Courier    ⇧ │  │ 16 │     │  OK  │        click OK.
│ ☐ Italic      │  │ Geneva       │  └───┘     ╰──────╯
│ ☐ Underline   │  │ Helvetica    │           ╭──────────╮
│ ☐ Outline     │  │ Shaston      │           │ Cancel   │
│ ☐ Shadow      │  │ Times        │           ╰──────────╯
└───────────────┘  │ Venice     ⇩ │  ⇩
┌──────────┐   Line Height: ┌──16──┐   Font Size: ┌──16──┐
│ Align Left│
└──────────┘
──────────────────────────────────────────────
The quick brown fox jumps over
```
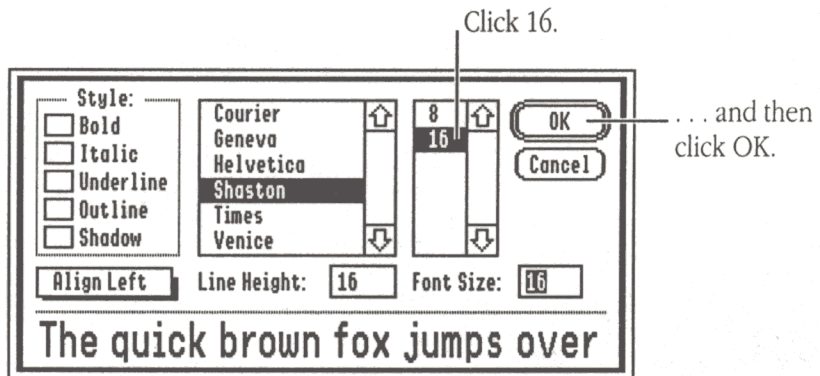
5. **Click the Colors button and choose the text color as follows:**

```
┌────────────────────────────────────────────┐
│  ┌──────────────────────────────────────┐  │
│  │ The quick ▓brown fox▓ takes a running leap │
│  │ over the lazy dog.                   │  │
│  │                                      │  │
│  └──────────────────────────────────────┘  │
│                                             │      Click blue . . .
│   Frame          Text                       │
│   ┌──┬──┬──┐    ┌──┬──┬──┐    ╭──────────╮   │
│   ├──┼──┼──┤    ├──┼──┼──┤    │  Cancel  │   │
│   ├──┼──┼──┤    ├──┼──┼──┤    ╰──────────╯   │
│   ├──┼──┼──┤    ├──┼──┼──┤    ╭──────────╮   │
│   └──┴──┴──┘    └──┴──┴──┘    │   OK     │   │      . . . then click OK.
│                               ╰──────────╯   │
└────────────────────────────────────────────┘
```
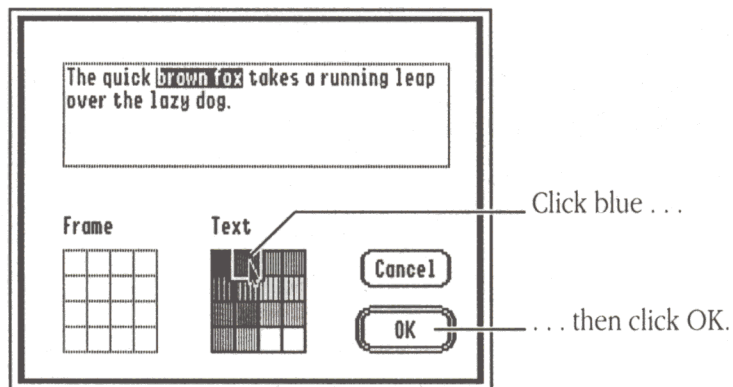
6. **Click OK again.**

7. Resize the new field and move it into place:

Adjust the size of
the field and
place it here.
(Make sure the field
is tall enough for
one line of text.)
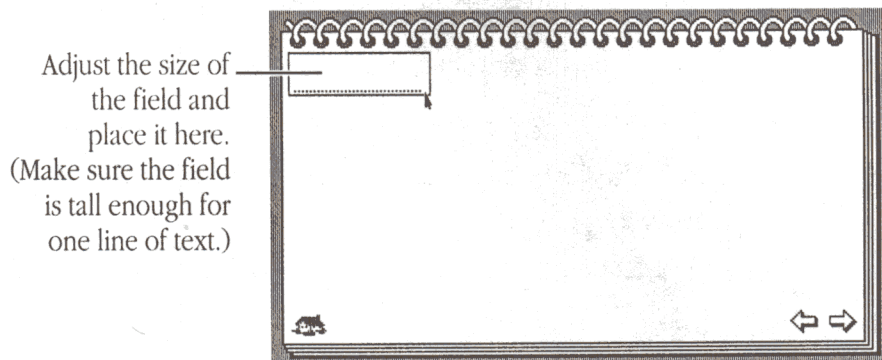
Remember, to change the size of the field, drag its corners; to move the field, drag it by its middle.

Text for the Stack Title field

In this exercise, you'll fill in the text for the stack's title and draw a line below it.

Getting ready: Make sure you're still viewing the Friends stack.

1. Choose the Browse tool.

2. Press the Tab key once to find the field.

The insertion point blinks in the field.

3. Type `Friends`

4. Lock the field.

Choose the Field tool (⊞) and double-click the field to open its Info box. Then click the Lock Text button and click OK.

5. Choose Background from the Edit menu.

The text disappears while you work in the background.

6. **Choose the Line tool (╱) from the Tools menu.**

When you choose the Line tool, the pointer changes to a crosshair.

7. **Hold down the Shift key and draw a line to go under the title.**

Since you can't see the title, you'll have to estimate where the line should go. It goes about an inch below the bottom of the spirals. If you make a mistake, you can use the Eraser tool (⌫) to erase the line or the Field tool (▦) to move the title.

❖ *Tip:* If you don't want to be forced to estimate where the line should go, you can draw the line on the card layer—where you can see the text—and then cut it and paste it onto the background layer. ❖

Hold down the Shift key and drag to draw the line here.
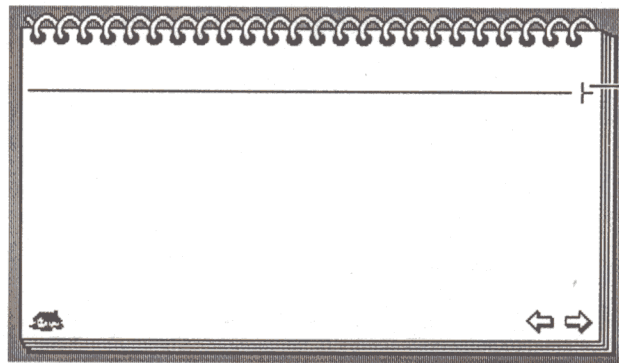
Holding down the Shift key while you drag makes it easier to draw a horizontal line.

8. **Choose the Browse tool (☝) to see how it looks.**

Your friend's name

In this exercise you'll create the field for your friend's name.

Getting ready: Make sure you're still viewing the Friends stack.

1. **Choose Background.**

    Make sure the word *Background* is in the menu bar.

2. **Choose New Field from the Objects menu.**

    The new field appears.

3. **Click the new field once to select it.**

4. **Choose Text Style from the Edit menu to open the Text Style dialog box.**

    This is a shortcut for clicking the Font button in the Field Info box.

5. **Set the text style for the field as follows:**

Click 16.

. . . and then click OK.

6. **Resize the new field and move it into place:**

Adjust the size of the field and place it here. (Make sure the field is tall enough for one line of text.)
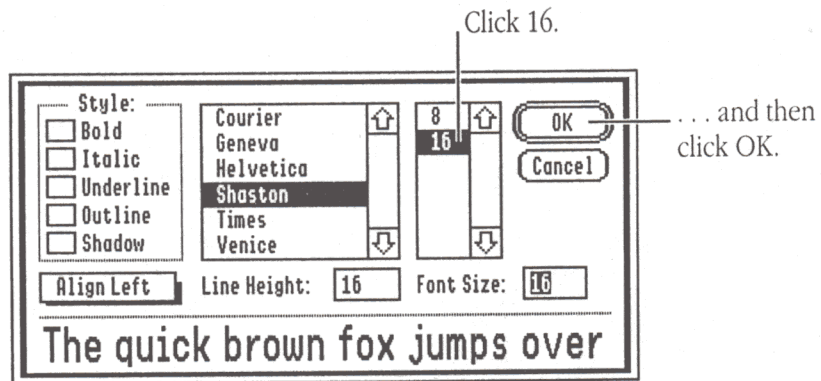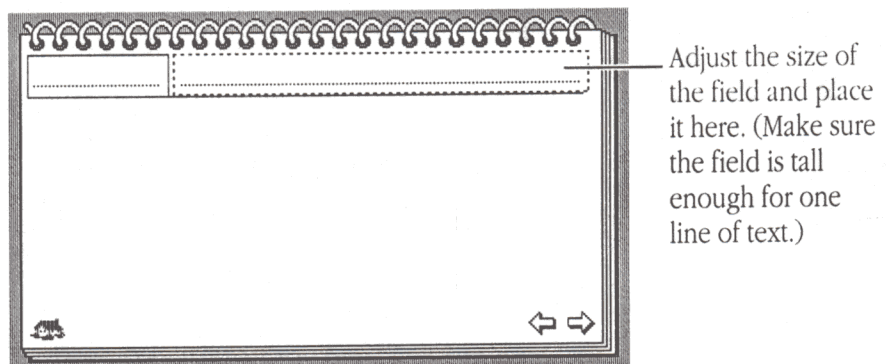
The two labels

In this exercise you'll create the field for the Hometown label and duplicate it to create the field for the Fun Facts label. In the next exercise, you'll enter the text.

Getting ready: Make sure you're still viewing the Friends stack and working in the background.

1. **Choose New Field from the Objects menu.**

2. **Double-click the new field to open its Info dialog box.**

3. **Click the Shared Text check box to select it.**

4. **Click Colors and set the color as follows:**

The quick brown fox takes a running leap over the lazy dog.

Frame   Text

Choose this color . . .

Cancel

OK   . . . then click OK.
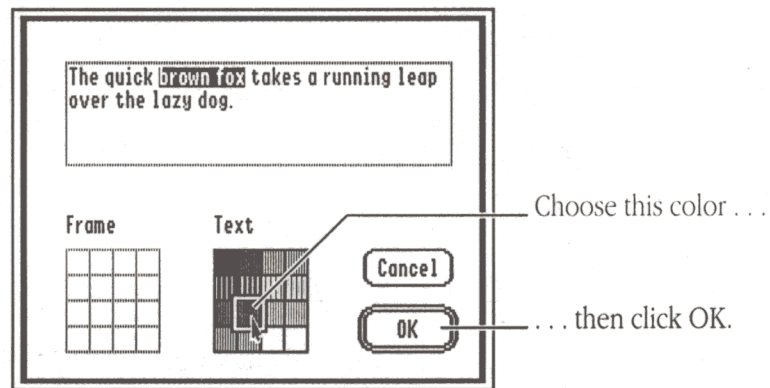
5. **Click OK to close the Field Info box.**

6. **Position the new field like this:**

Place the field here.
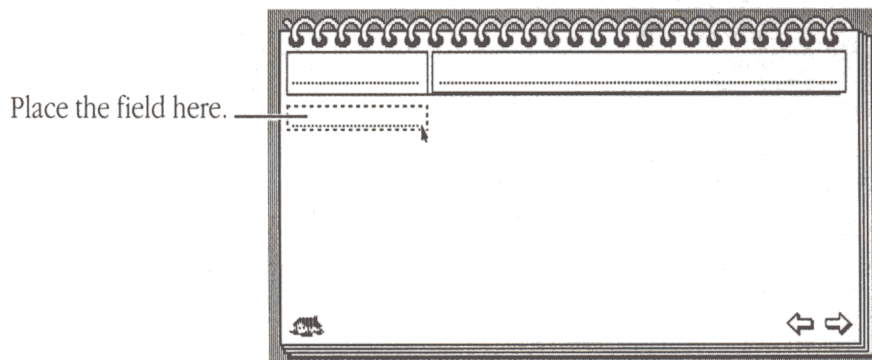
7. Duplicate the field, as described in the figure:

While holding
down the Shift *and*
Option keys . . .

. . . drag this field
straight down . . .

. . . until its copy is
in position here.
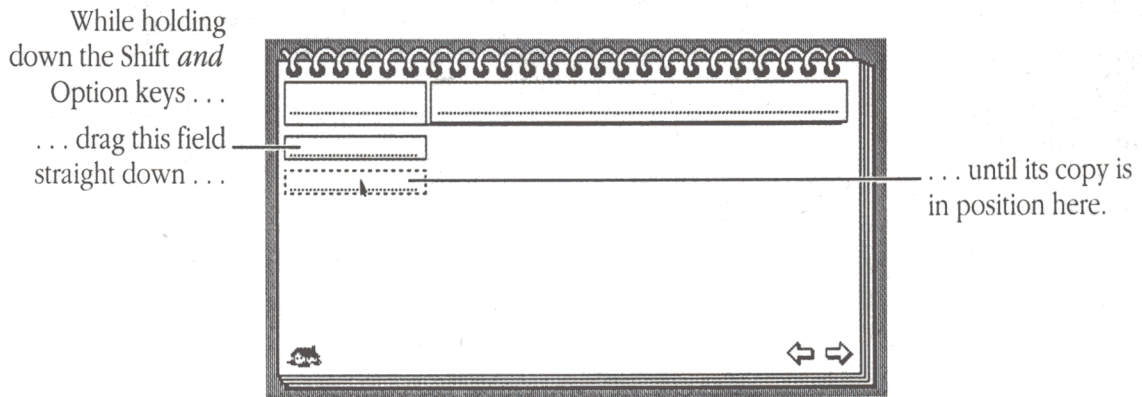
Text for the labels

Now enter text for the labels.

Getting ready: Make sure you're still viewing the Friends stack.

1. **Choose the Browse tool (✋).**

   You need the Browse tool to enter text in fields.

2. **Press the Tab key twice and type** `Hometown`

3. **Press the Tab key again and type** `Fun Facts`

4. **Lock the Hometown label field.**

   Choose the Field tool (▭) and double-click the field to open its
   Info box. Then click the Lock Text button and click OK.

5. **Repeat the process to lock the Fun Facts label field.**

The Hometown and Fun Facts fields

In this exercise you'll create the fields for your friend's hometown
and for fun facts about your friend.

Getting ready: Make sure you're still viewing the Friends stack.

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

   Make sure the word *Background* is in the menu bar.

2. **Choose New Field from the Objects menu.**

   The new field appears.

3. **Double-click the new field to open its Info box.**

4. **Click Show Lines to select the option.**

   The Show Lines option draws lines in the field to make it easier for the user to see where to type.

5. **Click OK.**

6. **Resize the new field and move it into place:**

Place the field here.
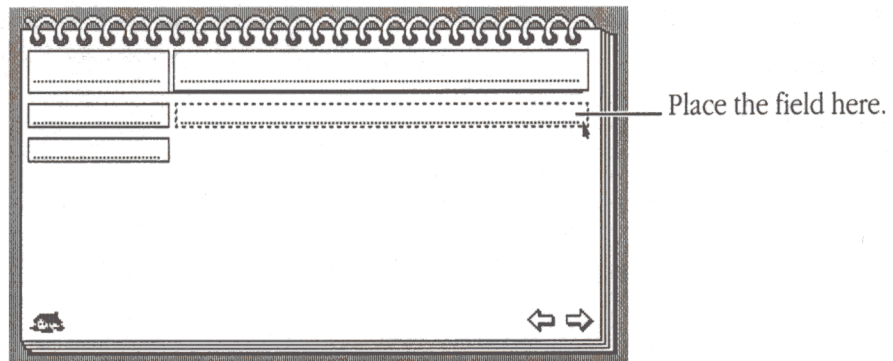
7. **Duplicate the field as shown here:**

While holding down the Shift *and* Option keys . . .

. . . drag this field straight down until the copy is in position here.
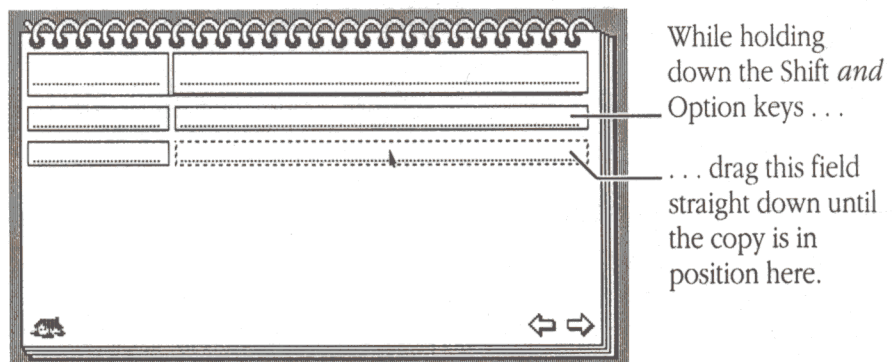
> If you clone the field successfully but don't get it in quite the right place, delete the new field and try again. You can delete a field by clicking it once and pressing the Delete key.

8. Extend the new field to near the bottom of the card.
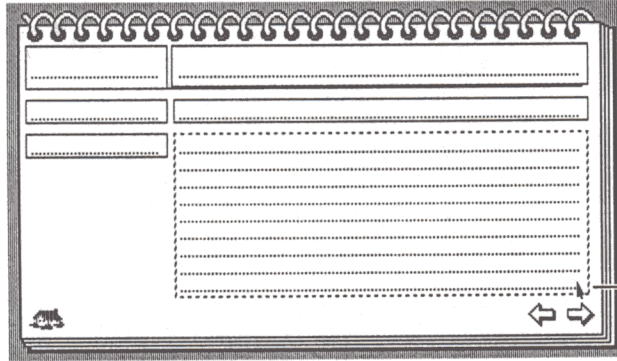
While holding the Shift key down, drag this corner of the field here.

9. Choose the Browse tool (✋).

Checking your work

You've completed the background and should be ready to start using the stack. Before going on, do a quick check to make sure you didn't make any mistakes.

Getting ready: You should be viewing the Friends stack and have the Browse tool (✋) selected.

1. Does your card look like this?

Friends

Hometown

Fun Facts
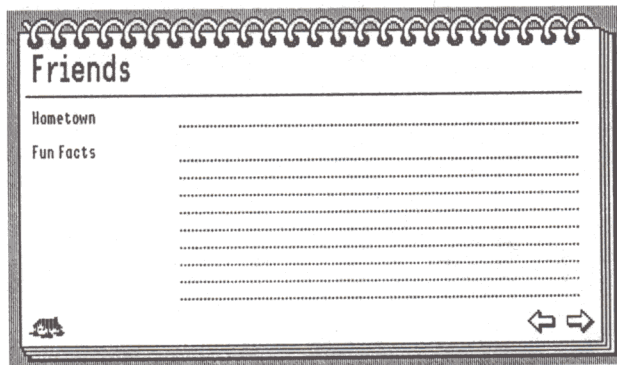
> If your card doesn't look quite right, review the sections on background art, background buttons, and background fields in this chapter.

2. Choose Bkgnd Info from the Objects menu.

Your Info dialog box should look similar to this:

You should have six fields in the background . . .
. . . and three buttons.

Your ID number may be different.

```
Bkgnd Name: [                                    ]
Bkgnd ID: 2748.  Shared by 3 cards.
Contains 6 background fields.
Contains 3 background buttons.
☐ Can't Delete
☐ Don't Search

(Script...)  (Colors...)      ( OK )   (Cancel)
```

The six fields are for (1) the title of the stack, (2) your friend's name, (3) the label "Hometown," (4) the Hometown field, (5) the label "Fun Facts," and (6) the Fun Facts field. The three buttons are left arrow, right arrow, and Home.

> If you have too few buttons or fields on the background, you may have either skipped a step or, more likely, accidentally created them on the card instead of the background. (If you choose the Card Info command from the Objects menu and the dialog box lists any buttons or fields, that's probably what you did.) See "Moving the Button From the Card to the Background" in Chapter 6 for a reminder about how to move objects from the card to the background.

> If you have too many fields, you probably duplicated an extra copy. Choose the Field tool and click the extra field to select it. Then press the Delete key to delete it.

3. **Click Cancel to close the Bkgnd Info dialog box.**

Using the stack You use the Friends stack just as you would use any other stack. In this exercise you'll enter text for the cards.

1. **Choose the Browse tool (☝).**

2. **Press Tab to start typing in the first field.**

3. **Type the name of one of your friends, for example:** `Jennifer Lu`

4. **Press Tab to move to the next field and type where she lives, for example:** `Nashville, Tennessee, USA`

Don't worry if the lines disappear while you type. They'll come back when you're done.

> If pressing the Tab key doesn't take you to the correct field, you can instead use the mouse to click where you want to type.

5. **Press Tab again to move to the bottom field and type a description of your friend:**

Fun Facts

Jennifer's favorite sport is soccer. She plays halfback on her school team. Next year, she's going to learn how to play the bagpipes.

6. **Choose New Card from the Edit menu and fill in the fields like this:**

Friends   **Marina Ivanovna Kutuzova** ─┐
                                            ├─ Press Tab to move between fields.
Hometown   Leningrad, Russia, USSR   ─┘
Fun Facts Marina lives with her mother and grandmother in a small
           apartment near a movie house. She goes to school number
           six. Her favorite food is pizza with boiled eggs and
           caviar.

           Marina has a pen pal in France.

7. **Click the arrow buttons to test them.**

Starting with an existing background

You created the Friends stack from scratch with an absolutely blank background. It's useful to know how to build a stack from scratch, but it's not always necessary to do so. For many stacks, you may be able to take advantage of someone else's work.

For example, suppose you wanted to create a report about some neat cars. Instead of starting from scratch, you can use exactly the same background, as illustrated by the exercises in this section.

Creating the stack

To create the stack, you'll copy the Friends background using the New Stack command.

Getting ready: Make sure you're viewing your completed Friends stack.

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

2. **Type** `Whiz.Cars`

3. **Click the "Copy Current Background" check box to select it.**

Click here and make sure the box is checked.

```
⊟:HD:HyperCard:Stacks:
5163 free of 20860 K.            ( Volumes )

☐ Addresses        ⬆   ( New Folder )
☐ ArtIdeas
☐ Birds                   ( Open )
☐ ButtonIdeas
☐ Calendar                ( Close )
☐ Friends          ⬇

New Stack Name:           ( Create )

Whiz.Cars|                ( Cancel )

⊠ Copy Current Background
```
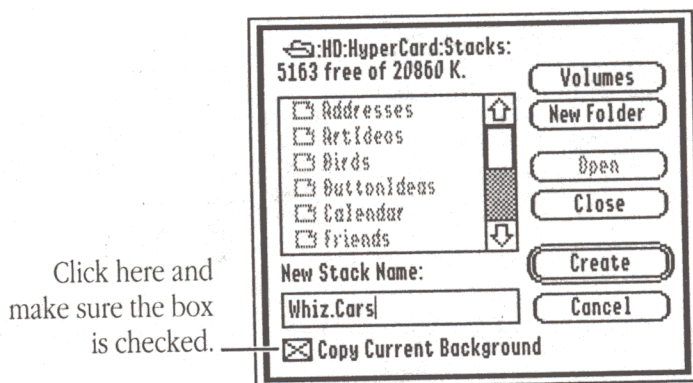
4. **Click Create.**

After you click the Create button, HyperCard creates the new stack and opens it. You are now in the new stack.

△ **Important:** You can use the New Stack command to create new stacks based on many, but not all, existing stacks. Some stacks have scripts that stop working if they're copied into a different stack. △

Changing the shared-text fields

In this exercise you'll change the text for the stack's title and the two labels.

Getting ready: Make sure you're viewing the new Whiz.Cars stack and that you're using the Browse tool (🖑). (To check the name of the stack, choose Stack Info from the Objects menu.)

Chapter 7: Creating New Stacks

1. **Choose the Field tool (▦).**

2. **Double-click the field with the word "Friends" in it.**

   Its Info box opens.

3. **Unlock the field.**

   Click the Lock Text button and click OK.

4. **Use the same method to unlock the other two fields.**

   Double-click the field with the word "Hometown" in it, click Lock Text, and click OK. Then repeat for the field with the words "Fun Facts" in it.

5. **Choose the Browse tool (🖑).**

6. **Press the Tab key.**

   The stack's title is highlighted.

7. **Type** `Cars`

   The old text disappears as soon as you start to type.

8. **Press the Tab key *twice* to highlight the word "Hometown."**

9. **Type** `Manufacturer`

10. **Press the Tab key *once* to highlight the words "Fun Facts."**

11. **Type** `Description`

12. **Choose the Field tool (▦) again.**

13. **Lock the three fields.**

   For each field in turn, double-click the field, click the Lock Text button, and click OK.

14. **Choose the Browse tool (🖑).**

Using the stack   Fill out a card as described in this exercise:

1. **Press Tab to start typing in the first field.**

2. **Type the name of the car:** `Tarantula Jumbo Van`

3. **Press Tab to move to each of the next two fields and fill in the rest of the card like this:**


```
Cars          Tarantula Jumbo Van

Manufacturer   Mammoth Motors
Description     This van can hold a family of twelve with plenty of room
                for all their legs. It has a small playground in the back
                and a swimming pool on top.
```

Other examples   You can use the same background for many other stacks. Here are some examples:


```
Books         Children Who Hate Liver

By            Debbie Heart, 8 years old, from Corpus Christi, Texas
Review        An excellent introduction to children's eating habits,
              including an in-depth analysis of why cupcakes seem to
              be universally more popular than liver.
```



```
Plants        Goldfish Plant

Watering      Water once a week
Description   A small plant with waxy green leaves. It also has some
              orange flower-like leaves that give the plant its name.
```



```
Gifts         Aunt Hester

How related   Mom's aunt
Gifts received 1987: underwear
               1988: underwear
               1989: An Apple IIGS
               1990: underwear
```



```
Molds         Slime Mold

Where found   Undersides of logs
Life cycle    Slime mold begins as a population of single-cell
              organisms. When they run out of food, they come together
              to form a small animal called a grex. The grex crawls
              along until it can find a good place to set roots. Then it
              turns into a small plant called a psuedopod which sends
              out spores to start the process all over again.
```

Finishing up

Congratulations. You've now completed all the exercises in this book. If you like, you can quit HyperCard and delete some of the practice files you've created, then go to the Home stack and delete any buttons you no longer want. You may also want to go to the User Preferences card in the Home stack and change your user level.

There's one more "Experts Only" section on the next page if you want to learn some more shortcuts. The last chapter describes a few more ways to enhance your stacks.

When you're finished with this book, you can use the *HyperCard IIGS Reference* or the HyperCard IIGS Help stacks to look up information about specific tasks.

Experts Only

This section describes several advanced techniques. If you prefer to skip them for now, move on to the next chapter.

◆ **Choose the Field tool (▦) inside the Friends stack. While holding down the ⌘ key, draw a rectangle by dragging the mouse diagonally.**

You've created a field the same size as the rectangle you drew. This alternative to the New Field command allows you to specify the size and location of the field at the same time you create it. (The same technique works with the Button tool.)

Before going on, you should delete the new field by selecting it and pressing the Delete key. Choose the Browse tool (☜) when you're done.

◆ **While still in the Friends stack, choose the Protect Stack command from the File menu. Then click Can't Modify Stack and click OK.**

There's now a padlock at the right side of the menu bar. If you try to change the stack in any way, you'll get a message telling you the stack is protected.

Before going on, you should choose Protect Stack again and deselect Can't Modify Stack to turn off the protection. By the way, be careful when you use the password feature of the Protect command. If you forget the password, there's no way to turn off the protection.

Onward

You now know enough to look through other people's stacks and create your own. Where do you go from here?

This chapter tells you where you can get more readymade stacks. It also describes how you can begin using art, sounds, and HyperTalk scripts to enhance stacks you create yourself.

Where to get stacks

HyperCard stacks are available from many sources. They range from simple but useful stacks by beginners like yourself to sophisticated commercial products that come with their own manuals. You may find some of these stacks useful in themselves; others may give you ideas for your own stacks. To find out what's available, start with these sources:

■ Your authorized Apple dealer and your favorite software store.

■ Your local Apple IIGS user group. A user group can be a good place to find free (or inexpensive) stacks and to meet HyperCard enthusiasts who are willing to share and discuss stacks they have made. See the preface of the *HyperCard IIGS Reference* for more information about user groups, or call Apple at 1-800-538-9696 to find a user group near you.

■ On-line bulletin boards run by user groups or electronic information services. If you have a modem, you can *download* stacks from these electronic sources just by paying their service charge and any telephone charge that may apply. (Some stacks may be *shareware*, meaning that if you like the stack and continue to use it, you are honor-bound to send the author a small payment.)

△ **Important:** Apple sells two HyperCard programs, one for the Apple IIGS and one for the Macintosh® computer. The stacks are *not* interchangeable. When you obtain new stacks, make sure you get ones that will run on the Apple IIGS. △

Art for your stacks

As an easy alternative to creating art for your stacks from scratch, you may want to take advantage of a scanner or collections of clip art.

Scanners work much like photocopying machines, except that instead of producing an image on a piece of paper, they produce an image on your Apple IIGS that you can paste into a stack. (Be careful of copyright infringement, though. Copyright laws apply to material copied electronically as well as to material that's photocopied.)
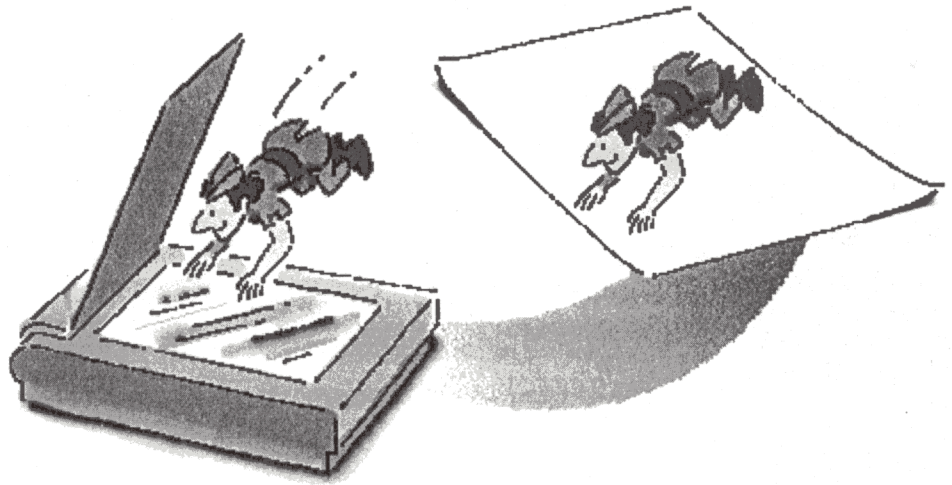
Another alternative is to purchase *clip art*—electronic collections of drawings that you can copy and use for your own purposes. You can get clip art from any of the sources for HyperCard stacks listed earlier in this chapter.

Sounds for your stacks

One of the most interesting ways to enhance a HyperCard stack is to add sound. Imagine, for example, a vocabulary stack that pronounced words. One way to incorporate sounds into your stacks is to use a special recording device. Such devices can work with microphones, or you can connect them directly to your home stereo. As with visual images, however, copyright laws apply to electronic recordings of sounds.

Another way you can add sounds to your stack is to learn the HyperTalk commands that play sounds.

Scripting

The most powerful way to enhance your stacks is to learn HyperTalk, the programming language that's built into HyperCard. With HyperTalk, you can write your own instructions, called *scripts*, for HyperCard to carry out. Writing scripts is called *scripting*.

If you'd like to learn more about scripting with HyperTalk, you should read the *HyperTalk Beginner's Guide*.

Using HyperCard on a Network

To run HyperCard IIGS, you need a hard disk attached directly to your computer or you need to be connected to a file server via a network. The instructions in this book assume you have your own hard disk. However, if you're using HyperCard on a file server, you can still use this book, provided you follow the special instructions in this Appendix.

The network administrator's preparations

Your network administrator must install HyperCard on the server before you can begin.

Network administrators can install HyperCard on the server by following the instructions in Chapter 2. After the installation is complete, the administrator should modify the privileges for all the HyperCard files and folders on the server so no one can make changes to them.

Your preparations

You must have your own copy of any files that you want to change. (If you only need to look at a file, you do *not* have to have your own copy of it.)

You'll change only two files as you go through this book: Home and Birds. To save copies of them in your own directory, follow these steps.

1. **Launch HyperCard.**

   Double-click the HyperCard icon on the server. (See instructions at the beginning of Chapter 3 for more details.)

   Make sure you're in the Home stack.

2. **If HyperCard asks for your name, just click OK.**

3. **Choose the Save a Copy command from the File menu.**

4. **Choose an appropriate directory.**

   You must choose a directory in which you have privileges to make changes: either your own user area on the file server or a 3.5-inch disk in your own computer. Your network administrator can help you if you don't know where to save the files.

5. Type `Home`

6. Click Save.

7. Click the Birds button.

8. Choose the Save a Copy command from the File menu.

9. Type `Birds`

10. Click Save.

11. Choose Quit from the File menu.

Changes to the instructions in this book

Having made these preparations, you should be able to follow almost all of the instructions in the rest of the book without any other changes. The exceptions are as follows:

- You don't have to install HyperCard yourself, so skip Chapter 2.

- When you start creating your own files in Chapters 6 and 7, be sure to save them in your own directory.

- Whenever you see instructions about a specific directory, you should be aware that your directories are somewhat different from the ones described in the book. Except for the Home and Birds files (and the files you create yourself), all the HyperCard files are on the server.

A

application *See* program.

application program *See* program.

authoring Creating or modifying buttons, links, fields, cards, backgrounds, and stacks using the Button tool, the Field tool, and commands in the Objects menu. Also refers to the **user level** that allows you to use the Button tool, the Field tool, and the Objects menu.

B

background A template shared by a number of cards. Each card with the same background has the same pictures, fields, and buttons in its **background layer.**

background layer The layer behind the **card layer,** containing all the elements of the **background.** You see the elements of both layers when you look at a **card,** as if the card layer were a transparent layer in front of the background layer.

browse To explore HyperCard stacks by clicking buttons and using the Go menu.

Browse tool (☜) The tool you use to click buttons and to position the insertion point in fields.

button A rectangular "hot spot" on a **card** or **background** that responds when you click it according to the instructions in its **script.** For example, clicking a right arrow button with the Browse tool can take you to the next card.

Button tool (⬭) The tool you use to create, change, and select buttons.

C

card A rectangular area that can hold buttons, fields, and graphics. All cards in a stack are the same size. Each card is a composite of two layers—a foreground layer, called the **card layer,** and a **background layer.** You see the elements of both layers when you look at a card, as if the card layer were a transparent layer in front of the background layer. Each layer can contain its own buttons, fields, and graphics.

card layer The layer in front of the **background layer.** You see the elements of both layers when you look at a **card,** as if the card layer were a transparent layer in front of the background layer.

clip art Electronic pictures that you can copy from one stack (or any other document) and paste into another stack. The term comes from the use of scissors to clip pictures on paper. Several of the stacks that come with HyperCard include clip art, and you can buy other clip art stacks that contain many different types of graphics.

Clipboard The holding area in the computer's memory for what you last cut or copied.

Command-key (⌘-key) equivalent The combination of the ⌘ key and another key on the keyboard that you can press instead of choosing a command from a menu.

D, E

download To transfer information from a distant computer to your own computer; to transfer files (such as HyperCard stacks) over telephone lines from a distant computer to your own computer with the aid of a modem.

F, G

field A rectangular area in which you type field text (as opposed to Paint text). Fields may exist in either the **card layer** or the **background layer.**

field text Text that appears in a field created with the Field tool or the New Field command. Field text can be edited and searched, while **Paint text** cannot.

Field tool (▭) The tool you use to create, change, and select fields.

H

Home cards The first five cards in the standard Home stack, designed to hold buttons that take you to stacks, applications, and documents. Choose Home from the Go menu (or press ⌘-H) to get to the card in the standard Home stack that you've seen most recently.

HyperTalk HyperCard's built-in script language for HyperCard users.

I, J, K

I-beam pointer The pointer used to enter and edit text.

insertion point The location in a field where text will be added or deleted, represented by a blinking vertical bar. You can position the insertion point in a field by moving the **I-beam pointer** over the location you want and clicking.

L

link   A short script, usually in a button, that allows you to move immediately to a specific card in a stack, to an application, or to a document. For example, clicking a button that contains a link to your Addresses stack takes you immediately to the first card of that stack.

M, N, O

message   A HyperTalk instruction sent to HyperCard through a **script** or through the **Message box.** Examples of HyperTalk messages are `help`, `go home`, and `the date`.

Message box   A special window in which you can type messages and in which HyperCard can type replies. To open or close the Message box, choose Message from the Go menu.

P

Paint text   Text you type using the Paint Text tool. Paint text can appear anywhere, while **field text** must appear in a field created with the Field tool. When you finalize Paint text by clicking, it becomes part of a card or background picture and cannot be edited except by erasing it and starting over. Unlike field text, Paint text cannot be searched.

Paint tools   Any of the HyperCard tools you use to create graphics. The Paint tools are all the tools below the top row in the Tools menu.

palette   A small window that displays icons or patterns you can select by clicking. You can see two of HyperCard's palettes, the Tools palette and the Patterns palette, simply by "tearing off" their respective menus. See also **tear-off menu.**

picture   Any graphic or part of a graphic, created with a Paint tool or imported from an external file, that is part of a card or background.

pixel   Short for "picture element"; the smallest dot you can draw on the screen.

point   In printing, the unit of measurement of the height of a text character; one point is about $\frac{1}{72}$ of an inch. When you choose a font, you can also choose a point size, such as 10-point, 12-point, and so on.

program   A file containing instructions that a computer can follow to perform certain tasks. HyperCard is a program. Computer programs are collectively referred to as software, and are sometimes called *applications* or *application programs.*

R

Recent   A special dialog box that holds pictorial representations of the last 18 unique cards viewed. Choose Recent from the Go menu to get the dialog box.

S

scanner   Any graphic input device that converts printed matter into bit (digital) data.

script   A collection of instructions written in HyperTalk, often associated with a **button.** You use the **script editor** to add to and revise a script.

script editor   A large window in which you can type and edit a **script.**

scripting   The act of writing **scripts;** writing programs in HyperTalk. Also refers to the **user level** that allows you to look at and change objects' scripts.

shared text   Field text that appears on every card in a background. Text in shared-text fields cannot be searched.

shareware   Software you can copy and try before sending payment to the author.

stack   A HyperCard document. Every stack consists of one or more **cards.**

T

tear-off menu   A menu that you can remove from the menu bar by dragging the pointer beyond the menu's edge. HyperCard has three menus that can be torn off: the pictorial Go menu, the Tools menu, and the Patterns menu. When torn off, these menus are called **palettes.**

Tools palette   The palette that you can get by "tearing off" the Tools menu.

U, V, W, X, Y, Z

user level   A HyperCard setting that determines which of HyperCard's capabilities are available. You can set the user level on the **User Preferences card** in the Home stack. Each user level makes all the options from the lower levels available, and also gives you additional capabilities. The five user levels are: Browsing, Typing, Painting, Authoring, and Scripting. You may also limit the user level for a particular stack by using the Protect Stack command.

User Preferences card   The last card in the Home stack, where you can set your **user level** and select or deselect the Blind Typing, Power Keys, and Arrow Keys options.

C

U, V

W, X, Y, Z