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and all the HyperStudio 4 Beta Testers!
# HyperStudio User’s Guide

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Chapter 1
Welcome to HyperStudio

Overview of the User's Guide

The User's Guide is designed to help you jump into HyperStudio 4.0. There are several chapters detailing new features, and an all-new tutorial. The Reference Manual is a complete listing of HyperStudio's features, and how to use them. The User's Guide will help you start using HyperStudio 4.0 right out of the box.

Later in this chapter is a description of everything on the HyperStudio CD. Installing HyperStudio is explained in Chapter 4.

Experienced users will want to go right to Chapter 2 to read about all the new features and functions in HyperStudio 4.0. Chapter 6 has a handy table of the keyboard shortcuts, while Chapter 7 lists some great tips and tricks.

New users will find the tutorial in Chapter 5 a great way to learn HyperStudio. A Brief History of Writing is a five-card stack. All of the artwork is located on the CD in a tutorial folder. New users will quickly gain confidence as they build this interesting, fun multimedia presentation. The tutorial also teaches the newest techniques and shortcuts, so experienced users should go through it as well to practice firsthand some of the features described in Chapter 2.

As with all products from Knowledge Adventure, we value your comments and observations. Please feel free to contact us at hyperstudio@education.com. To purchase other HyperStudio manuals or guides, call Knowledge Adventure at (800) 545-7677. All the manuals (except the Teacher's Guide) can be downloaded from the HyperStudio CD. Check www.hyperstudio.com periodically for updates to the manuals.
What’s On the HyperStudio CD?

Software
  HyperStudio 4
  HyperStudio 4 Player
  Flaming Pear Graphic Filter
  VR ObjectWorx™ Demo
  VR PanoWorx™ Demo
  Aladdin Stufflt Lite™ 3.6
  Aladdin DropStuff™ 5.5
  Aladdin DropZip™ 5.5
  Aladdin Expander™ 5.5
  Adobe® Acrobat™ Reader 4.0
  QuickTime® 4.0
  Morph™ 2.5

Features
  HyperStudio Fonts
  HyperStudio 4 Easy Effects
  HyperStudio 4 Tutorial
  HyperStudio Ready Made Cards

Resources
  Professional Development Materials
  Teacher Lessons
  Student Projects
  User Projects

Manuals and Guides
  HyperStudio 4 Teacher’s Guide
  HyperStudio 4 User’s Guide
  HyperStudio 4 Reference Manual
  HyperLogo™ 3.0 Reference Manual

Macintosh Only
  Animation Maker
  HyperStudio Icon Librarian
What’s On the HyperStudio Program CD?

The HyperStudio Home Stack environment provides access to everything within the HyperStudio folder as well as the HyperStudio CD-ROM. The HyperStudio CD is a critical resource for beginners. Experienced users will like the streamlined access to over 400 MB of new content, stacks, and online documentation. The Home Stack presents the following sections of material: Discover, Learn, and Excel. Each section is designed to explain or demonstrate the enormously varied aspects of HyperStudio—from getting started in a classroom to delivering professional presentations over the Internet. In any case, HyperStudio is fun! You don’t need the CD to build projects but you must have the CD in your disk drive to get full benefit of the HyperStudio Home Stack.

Discover   Learn   Excel

Who was your childhood hero? Was it Thor Heyerdahl, who voyaged on a balsawood raft from Peru to the Polynesian Islands? Was it aviator Amelia Earhart, the first woman to fly alone across the Atlantic Ocean and to receive the Distinguished Flying Cross? These people and other heroes were participants in the adventure of discovery. Discovery with HyperStudio continues to be one of the most exciting activities we can pursue.

HyperStudio’s CD-ROM offers a wide variety of stacks for discovery. Discover how to get anywhere in the Home Stack with two clicks. Discover the exciting new features of HyperStudio 4.0. You can also discover the right lesson or student project just for your needs. Discover how others have created multimedia projects you can modify for any purpose you like. Wander down the HyperStudio Street to view stacks on cool technologies and links to pricing and licensing information.
When you want to push the limits of creation, discover what Morph can do! Both the Morph manual and Morph program are included on the CD. Morph allows you to transform one picture into another in a seamless transition. While the possibilities for fun are endless, Morph can show the transition from a tadpole to a frog, or the transformation of a renovated building. What once could exist only in the imagination is now made visible - all in the Discover section of the HyperStudio Home Stack.

From an introduction of essential skills to the new Click Programming environment for HyperLogo, HyperStudio provides opportunities to learn all sorts of new skills at your own speed.

How often have you wished for a way to present information creatively? Whether you want to make a simple slide show in a few clicks or create an original interactive multimedia description of an abstract concept, HyperStudio is remarkable in its ability to facilitate solutions. Use any of the Ready-Made-Cards for specific projects and learn tips on introducing multimedia creativity into your projects from the Easy Effects stack. You can also learn what's happening 'under the hood' of the Home Stack and many selected projects by clicking the annotation icons. Finally, excite your creativity by learning the ways HyperStudio helps you make things happen. These and all other stacks on the CD are there to inspire you to try new ways to tell your story.

The new HyperStudio CD-ROM has lots to see and enjoy. For some real insight for creating projects, be sure to click the "about this stack" icon and any question mark icons placed on the expert projects.
We at Knowledge Adventure appreciate how important good training materials and efficient service are. With terrific support from a solid company, educators and professionals can excel far beyond anyone’s imagination. The vast network of HyperStudio users didn’t happen by accident. A whole generation of teachers, students and individuals has been using HyperStudio for many years. As a result, there’s an abundance of books and professional development materials for beginning as well as experienced users. Knowledge Adventure is dedicated to supporting this information network and helping it grow. We’ve provided many of these materials on the CD as well as links on where to find more. There are many ways to be a part of the HyperStudio community that shares information and creates a more dynamic learning environment.

- The Adventurer’s Club candidates are professionals and program enthusiasts who currently use our products at conferences, seminars, and in-services. Here you can learn how to be an official member and receive these benefits: support through product literature, pre-release CD-ROMs, door prizes; networking opportunities; free software; opportunities to learn about the latest technologies and software products. Can’t wait to see it on your CD-ROM? E-mail schoolsales@knowledgeadventure.com for information.

- Professional Development offers numerous training resources and opportunities. A few of the resources available are free training materials; grants; contests; templates and stacks; HyperStudio books, disks, and CD-ROMs; third-party companion products such as a Portfolio Assessment Toolkit® or Multimedia Yearbook Toolkit®; and web resources such as project ideas, foreign language links, lesson plans, and
biology websites. Training opportunities include the Knowledge Adventure conference schedule; a list of HyperStudio workshop leaders and workshop offerings; a list of colleges that offer courses using HyperStudio; Webring and ListServ.

- Workshop-in-a-Box is virtually a self-run training program. One person reviews and presents the material to the other participants. This is a great way for colleagues to learn HyperStudio basics in a supportive environment.

Customer Service makes all the famous HyperStudio resources available, and Technical Support gives you peace of mind as well as real help in times of need. Technical support contacts and numbers are provided in the Home Stack, listed in the Teacher’s Guide, the Reference Manual, the User’s Guide, and on the CD-ROM.

Visit

For more ways to learn and create with Hyperstudio, visit the following Internet sites:

Hyperstudio.com – Provides Hyperstudio news, information and resources to help you create any project. Included is the Hyperstudio update library, stack galleries, educator resources, marketing and support contacts, user forums and much more.

SiteCentral.com – Helpful information for using SiteCentral, including answers to frequently asked questions, sample sites and technical support.

KnowledgeAdventure.com – Features a complete reference library for using Knowledge Adventure products and services.
CurriculumAdvantage.com - Creates partnerships with educators who want the best in K – 12 classroom technology. Includes courseware, instructional management systems, consultation, training and more.

HSNetwork.com – International resource for Hyperstudio users.

HyperStudio Web Ring – A list of links to Hyperstudio- and SiteCentral-related websites that are perfect for use in the classroom.

You’ll be delighted with the range of possibilities!
Chapter 2
New Features in HyperStudio 4.0

Tip of the Day
Formerly available exclusively on Mac, Tip of the Day is now available on the Windows platform. As on the Mac, Tip of the Day is in the home directory start-up stack. A new Tip of the Day card displays at each start up, and can be customized for your own needs. Clicking on the “Home” button on the Tip of the Day card takes you to the Home Stack.

Media Library Window
The Options menu features a new selection called Show Media Window. Drag and drop elements onto a card from within its drop-down menu.

Upgraded Media Library
The HyperStudio Media Library has been upgraded and expanded. The material is copyright-friendly and organized for easy use. You can drag and drop it (see Drag and Drop) to the card you are working on. Simplify access to content with the Media Library Ready Made Cards (from the File menu). It can be accessed either by clicking Options on the menu bar and selecting Show Media Window, or by Clicking File on the menu and selecting Add Clip Art....

Drag-and-Drop Feature
This feature simplifies the process of integrating wonderful graphics, text, movies, sounds, etc., by allowing you to drag and drop these elements to the card being worked on. These elements can be from the media library, desktop, a web page, or any source you have available to your computer. A graphic can simply be dropped on to the card, or you can use the Option key on the Mac (Alt on Windows) to drop the picture and be given options on how to drop it. See Chapter 12 in the HyperStudio 4 Reference Manual.
HyperLogo “Click Programming”
Click Programming is the new point-and-click programming interface for HyperLogo. This new editing tool allows even inexperienced users to do HyperLogo scripting, and greatly expands their scripting possibilities. This tool is located in the Actions dialog box.

Printable and Resizable Storyboards
From the Extras menu, selecting Storyboard provides the ability to print individual, selected cards and card-image thumbnails right from the Storyboard window. This window is now resizable.

Stack to Go
This new presentation tool allows someone who does not have HyperStudio to view a stack. The Stack To Go option (in the “Save As Type” drop-down menu) creates an application that includes the HyperStudio player with the stack.

QuickTime Transitions
Moving from card to card has never been so much fun! QuickTime transitions feature ten new effects with dozens of settings for seemingly unlimited possibilities. This requires QuickTime 4.0 installation.

Transparent Scrollable Text
Transparent text objects can now scroll with the background imagery appearing underneath.

Sequencer NBA
Formerly called Timer New Button Action, the Sequencer NBA enables precision timing for running buttons or objects with actions. It augments the ButtonRunner NBA with the ability to set times for each button action. To use this feature, drag the objects from the pane on the left to the one on the right. Click on the 0.000
time to enter a new time and press ENTER. This will run the action on the
selected object at the time selected.

**Blabbermouth and AutoRecord NBA**
The text-to-speech enabler Blabbermouth NBA is now available on Windows.
This button action reads aloud text in field. NBA has been added to enhance
sound capabilities, allowing the user to record sounds to a specified file.

**Enhanced Roll Credits NBA**
Horizontal scrolling has been added to the original vertical scrolling by the Roll
Credits NBA.

**Font Styles on Buttons**
From the Button Appearance dialog box, select Features and click the Styles
button.

**StarField New Button Action**
This NBA creates moving stars on your card. Formerly only on Mac, this is now
available to Windows users as well.

**Masked Password Entry**
The Preference dialog now asks you to enter your password twice. This is found
under Preferences in the **Edit** menu (Ctrl/Command ;).

**“Snap-To” Alignment Grid**
Use “Snap-To” to precisely align objects on a card. This is found on the **Options**
Menu under the selection Grid.

**Scale and Rotate Enhanced**
Irregularly shaped areas can be selected and have scale and rotate functions
applied to them.
RTF Text Support
Users can now import .rtf files and retain formatting that is supported by the current text object.

Text Field Tamer
Text Tamer is found under Extras on the menu bar. This allows the user to play with the read-only attribute of text fields found on the card and the stack.

256 On-screen Color Palette
Setting your preferences to experienced user gives you this expanded Color selection from the menu bar. This was found previously on HSWin 1.0 and HSMac 2.0. Included in this palette are 16 upgraded patterns.

Enhanced Interactive Cursors
When creating a graphic, button, card or stack, select the features button. Click the Custom Cursor checkbox and select one of the files (.ani or .cur) from the menu. This will create an animated or a static custom cursor.

Context-sensitive Menus
Right-click the mouse on an item such as a button, card, or graphic object to get enhancement menus that relate to the type of object selected.

Decimal Input for Times
When making a selection from the Actions dialog box, choose Automatic Timers under Things to Do. The dialog box you see next asks you to enter a time in tenths of a second. This provides greater precision of control for auto-timed actions.
**Ready Made Cards Expanded**
Customize your own submenu of Ready Made Cards by adding your own folders to the Rdymcard directory. These folders automatically become part of the submenu. Now entire stacks can also be placed here and will be imported when selected. See Chapter 5 in the *HyperStudio Reference Manual*.

**Create Your Own Mascot**
Your own mascot can now replace Addy in the help dialog boxes. Create a 90x90 .bmp file called “mascot.bmp” and place it in the same folder as the HyperStudio application. The pixel in the top left corner will be the transparent color.

**Go to URL Action**
Similar to the Netpage NBA function, this function is found in Places to Go in the Actions dialog box.

**Auto URL Action in Text Objects**
Typing [http://www.hyperstudio.com](http://www.hyperstudio.com) (or just [www.hyperstudio.com](http://www.hyperstudio.com)) in a text object automatically turns the phrase into a hypertext link with a Go To URL action associated with it.

**Graphic Object Effects**
All effects and Plug-in filters in the *Edit* menu work on graphic objects. Select an object and use one of the effects from this menu on it.

**Object Transparency**
The Appearance dialog box has a slider to select how transparent you want the object to be.
Enhanced User-Defined Preferences
The About This Stack dialog now includes a checkbox to save the stack settings as the default.

Hot/Live Edit Display
When moving an object, a picture of the object is displayed, rather than just an outline.

Menu Item Names Changed
In the Objects menu, the item names are more specific and clear. See Chapter 2 in the HyperStudio Reference Manual.

Format Menu Added
Selections from this new menu allow the user to set defaults on text creation. It also allows users to change all selected text in a text box. The font currently in use is displayed in this box. Selecting Font from this menu shows a list of all the recently used fonts.

Highest Compression Mode is no longer Default
See the Edit menu under Preferences. The last option in Stack Preferences is no longer checked by default, and must be checked to enable compression.

Uncheck Highlight Option on Invisible Buttons
The Highlight option automatically unchecks when an invisible button is created.

Animation System Enhancements
Path editing for animations has been greatly expanded.

Morph 2.5 Included!
Gyrphon Software’s Morph 2.5 is now bundled with HyperStudio 4 at no extra charge. Mild-to-totally-wild effects are the result of creating QuickTime or AVI
movies that smoothly transition from one object or image to another. The user can also create warping and caricature effects of any still image or dynamic morphs between two digital movies. The resulting movies are easily imported into a HyperStudio stack. A short Morph tutorial concludes this chapter.

**Terrific Upgrade and Licensing Policies**

For the first time, HyperStudio 4 upgrades will be available through your favorite authorized software reseller. Contact Knowledge Adventure for the reseller nearest you by calling 800-545-7677. Outside the USA and Canada call 310-783-0197 or email: hyperstudio@education.com. Visit the HyperStudio website for more news and information about HyperStudio 4: http://www.hyperstudio.com.
HyperStudio and Morph Pro 2.5
A Brief Tutorial

Morph Pro 2.5 is bundled with HyperStudio, meaning the complete program is on the HyperStudio Program CD. The Morph Reference Manual is also on the CD and can be printed. Morph creates a movie or “video” file that can then be played in a HyperStudio stack. Morph movies show transitions from one image to another, as if one were being transformed to the other. It can be used to show serious transformations such as the effect of erosion over time, or fun ones, like the growth of a puppy. The following tutorial will create a stack with a Morph movie. This tutorial assumes a basic understanding of HyperStudio. New users should start with a HyperStudio tutorial.

The first step is to create or select the two images to be morphed. Open a new stack in HyperStudio, and set the stack colors to 300 x 400 millions of colors.

1. Create a basic background on the first card.

2. Create a new scratch card and draw separate scene elements (sun, clouds, small plant, small bushes). **You must have a scratch card!**

3. Use the lasso tool to select, copy and paste the elements one at a time back onto the scratch card. When pasting (while the red-dotted line is visible), press command-G or Crtl-G. This makes the elements Graphic Objects. (If you make the element on the scratch card a graphic object, then paste it, you won't be able to modify it later in step 6.)

4. One at a time, copy and paste the graphic objects onto the background card. Position them as desired with the Edit/Selector (arrow) tool.

5. Copy the first card and paste it, creating a new card exactly the same. Delete the elements on the second card.
6. Move to the scratch card (Card 3) and scale the elements up. Use Scale and Rotate from the Effects option on the Edit menu.

7. Select, then copy and paste the bigger plants into graphic objects as done in step 3.

8. Copy and paste them onto Card 2. Position them in the same place as the smaller elements on the first card. These are the images that the images on the first card will “morph” to.

9. Save your stack, then move to Card 1, and select Export Screen from the File menu. Give it a name (Picture1).

10. Move to Card 2, and select Export Screen from the File menu. Give it a name (Picture2). Save your stack.

Now that the images are made, launch Morph Pro 2.5 to create a new morph document movie.


12. On the start image, use the red square dot on the tool bar to add points that outline the elements that change between the start and end images. Readjust the points on the end image with the arrow tool. The more points the higher the quality of movie that will result.

13. Select File>Export Movie... Give the movie a short name with no spaces, ending with .MOV for cross-platform purposes. From the Windows
platform, under File select Save as…and save the movie with an .avi. extension. From the movie options dialog, choose Video compression (default) and a minimum of 8 to a maximum 15 frames per second (or just use the default 10 fps). Click OK. Wait until the movie is finished building.

Now, open HyperStudio and create a new stack to play your movie. Set size to 500 x 400 pixels, and color to 16 bit/thousands of colors.

14. Make a button or other object to play the movie. At the Things to do dialog, choose Play a Movie. Choose the morph movie created in step 14. Select "no" when asked if you want to resize the image.

15. Using the draw/paint tools, fill in the sides of the card background to match up with the imported 1st frame of the movie. This can be tricky but it's a good challenge and fun.

16. Save the stack, click the Browse tool (browse mode) and try out the movie. So cool!

The movie and stack size can vary, however, the method above produces the best results with a minimum of work. The stack size could have easily been 640x480 but should not be shorter in height than the morph movie. Also, while step 15 isn't necessary, it does result in a neat "hidden movie" effect and offers a somewhat challenging opportunity to use the paint tools. Remember, the complete Morph manual is on the HyperStudio Program CD.
Chapter 3  
Using HyperLogo, a Scripting Language for HyperStudio

About HyperLogo

What is HyperLogo?

HyperLogo is the scripting language in HyperStudio. HyperLogo provides you with the powerful combination of the programming language Logo and the ability to control many aspects of HyperStudio using built-in callbacks. This means HyperLogo can be used for something as simple as quitting HyperStudio to something as complex as building a smart address index using Logo’s list processing capabilities.

You should have some understanding of HyperStudio before you begin using HyperLogo. For example, you should know how to make and name objects, create links to different cards and stacks, and use Actions like Play a sound. This does not mean that you need to be an expert HyperStudio user to begin using HyperLogo. In fact, once you are familiar with a few HyperStudio basics, you can begin to use the Click Programming environment in HyperLogo to manipulate HyperStudio objects.

Why Use HyperLogo?

HyperStudio has such a wealth of features that you may wonder why you would need to use HyperLogo. HyperLogo makes it possible to do things that are either impossible or difficult using HyperStudio alone. For example, in HyperLogo you can program fine control over movie playback, create a virtual calculator, or even create a drawing program. The long answer is HyperLogo is the Logo programming language, and the sky’s the limit!
There are three categories where HyperLogo really excels:

1. Accessing the built-in HyperStudio Callbacks. Callback commands manipulation of almost every aspect of HyperStudio. Callbacks can be used to show and hide a sequence of objects, change the size or position of objects, time events, or change text. Since there are so many HyperStudio callbacks available, all of which can be combined with other HyperLogo commands, it is virtually impossible to list every possible way to use them.

2. Turtle Graphics. Turtle Graphics offer a way to visually explore mathematics, geometry, logic and other higher order thinking skills. The exciting news is that Turtle Graphic projects can range in scope from a young child exploring concepts like forward, back, left, and right, to a more experienced user creating custom brushes for a free style painting program, to an advanced user building 3D models of molecules and graphic simulators.

3. Basic Programming Capabilities. HyperLogo has a wide range of programming commands that allow you to do tasks such as create, open, and change disk based text files (Text IO), manipulate data, perform calculations and "make decisions" based upon current values and other criteria. This programming language can be used to create very sophisticated applications.

**Logo History and Philosophy**

Logo is more than a programming language. Developed in the 1960s, it was built on the philosophy of learning called Constructivism. This theory of learning is largely based upon the studies of Swiss psychologist, Jean Piaget. Logo was designed to support constructive learning processes.
Since Logo represents both a programming language and a philosophy, it’s important to take a quick look at both aspects. Many books and websites are dedicated to describing the essence and merits of Constructivism. “Constructivist” and “Constructionist” are terms used in reference to the belief in the construction of knowledge. This belief can be summarized by saying: We build knowledge based upon what we know by exploring and interacting with the world around us.

This concept is very important since Logo provides the tools, the language, and environment to create a miniature world that can be explored and manipulated. You can use simple Logo commands immediately and effectively, but you can also build upon this knowledge by combining commands in increasingly complex ways. Logo is a programming language that expands in potential as your understanding grows.

Today there are many implementations (versions) of Logo used throughout the world. Not every version of Logo is exactly the same as every other, but many Logo scripts work basically the same, regardless of the Logo application being used. This means that you have a wide variety of reference materials available, in the form of books and websites that represent years of programming and teaching experience in using Logo.

From 1967, when Logo first emerged from the MIT Artificial Intelligence Laboratory, to today, Logo has been a unique programming language that has experienced innovation and updates without losing its character or usability. HyperLogo blends the rich, long history of Logo with the cutting-edge, multimedia features found in HyperStudio.
Introduction to HyperLogo

HyperStudio 4 includes the next generation of HyperLogo. Numerous features have been added to make HyperLogo accessible and easy to use. The following overview will help you get started with HyperLogo. Refer to the HyperLogo Reference Manual, or use online Help within the HyperLogo environment for complete descriptions. The HyperLogo Reference Manual can be printed from the HyperStudio Program CD, and is available for purchase at the HyperStudio website.

Opening HyperLogo

There are a few different ways to enter the HyperLogo scripting environment:

Actions

If you are starting from scratch, go through the process of making, naming, and positioning a button, graphic or text object, then select Actions / Things to do / Use HyperLogo. You are now in the HyperLogo script window. Below the script window is the Click Programming window. This will be discussed later.

HyperLogo Menu

There are three categories of HyperLogo options available in the this menu:

HyperLogo Run Box This allows you to test HyperLogo statements without entering the HyperLogo environment. In other words, any HyperLogo commands typed into the Run Box window will execute
as soon as you press the Return key on Mac, or the Enter key on Windows.

*Edit Item Script* This option is used with specific HyperStudio objects: buttons, graphics, and text. Using the Edit/Selector, (the arrow on the *Tools* palette of the menu bar), click on the object to be edited, then select Edit Item Script from the HyperLogo menu.

*HyperStudio Events* There are several events listed here such as Edit Arriving at this stack and Script and Edit Leaving this card Script. HyperLogo scripts attached to these events are executed when the event occurs in HyperStudio. To enter HyperLogo, simply select the event from the choices available.

**Keyboard Shortcuts**

If an object already has HyperLogo as an associated action, the easiest way to get into HyperLogo is to use the Keyboard shortcut. Select the Browse tool (the hand from the *Tools* palette on the menu bar). On Mac, hold down the command key (Apple or clover leaf) and click on the object with the mouse. On Windows, hold down the Alt key and click on the object with the mouse.

**Contextual Menu**

Choose the Edit/Selector tool, (the arrow from the *Tools* palette on the menu bar), hold down the Ctrl/Command key and click on the object with the mouse, then select Action / Use HyperLogo.
The HyperLogo Environment – Script Window

A Script window opens automatically when entering HyperLogo. Each Script window is attached to a specific HyperStudio object such as a button or card. It can also be attached to a specific HyperStudio event such as Arriving at this stack. This is the traditional HyperLogo window where scripts are manually typed and edited.

File Menu

*Quit / Exit HyperLogo*

This leaves HyperLogo. Before leaving, all windows are closed. If any changes have been made, you will be given the option to save, not save, or cancel and not leave HyperLogo. Leaving HyperLogo will take you back to HyperStudio, where you can execute any commands in the Script window.

Edit Menu

*Preferences*

There are several preference options available for customizing the HyperLogo environment. New users will want to maintain the default settings that automatically open the Click Programming window. More experienced users may want to optimize the environment based upon their personal programming style and needs.

*Syntax Coloring*

This reformats the text in the Script window so that certain types of text appear in different colors. This makes it easier to read and edit scripts.
Customize these color settings by selecting Edit / Preferences / Fonts and Colors within the HyperLogo environment. The default colors are as follows:

; comments are green. HyperLogo ignores text that begins with a semicolon. It's good to develop a habit of providing your scripts with brief descriptions about what is happening.

COMMANDS are blue. Many scripters capitalize commands, also referred to as Primitives and calls.

Words are purple. Words are a fundamental aspect of the Logo language and are used for things such as naming variables. Words are also very important to HyperLogo callbacks in defining the parameters of HyperStudio objects such as "CardName, "ObjectName, and "ObjectType.

Everything else is black. Everything else consists of such things as ProcedureNames: variables, numbers, special character and symbols, etc.

Pretty Print

This is another feature that reformats the script to make it easier to read. Commands that appear within bracketed lists, such as the commands executed in a REPEAT loop, are placed on separate lines and indented.

Find Menu

The various Find and Replace commands in the Find menu work within the HyperLogo environment.
Click Programming Menu

Click Programming Window

This point-and-click programming interface provides complete access to all of the HyperLogo commands available. Now you do not need to try to remember every command in the HyperLogo language, whether it uses parameters, or what those parameters are supposed to be. Click Programming will do the typing, then show where and even how to fill in the blanks.

Parameter Pickers

Parameter Pickers are pop-up menus and dialogs that help set appropriate parameters for commands in the Click Programming window. There are a wide variety of Parameter Pickers available. To open a Parameter Picker on Mac, click and hold on the parameter until the Picker pops up. On Windows, press the CTRL key and click the parameter.

Help Menu

The HyperLogo Help system is a context-sensitive online reference manual. In other words, Help will try to help you find the Help you need. When a command is selected (highlighted), Help will open with the command’s description showing. If nothing is selected, Help will open on the Help Index. There are several ways to enter Help in HyperLogo:

1. From the Click Programming window, select the Help button.
2. Menu selection: on Windows, select Help from the Help menu. On Mac, select Help from the Click Programming menu.


**Entering Commands with Click Programming:**

**A Tutorial Introduction**

To see how click programming works, create a simple script that draws a colored box at a particular position on the current card. Along the way, learn how a few of the parameter pickers work.

To begin, create a new button and pick Use HyperLogo for an action. The Click Programming window and an empty scripting window appear. The area at the top of the Click Programming dialog is the command you're building; this is the command prototype. You could just type the command here, but we'll fill it in with the point-and-click command lists to illustrate the simplicity of this method.

*What We Will Do*

The commands we'll use are Turtle Graphics commands, so start by picking Turtle Graphics from the left list. Scroll down to find this entry. Once you select Turtle Graphics, you'll see a list of the graphics commands in the right list.

The basic plan involves three steps:

- Pick a location.
- Pick a color.
- Draw the box.
1. Pick a Location

Picking a location involves setting the drawing turtle to a specific location on the card. This involves trial and error with the text based HyperLogo environment, but Click Programming offers a speedier alternative.

There are three commands needed from the graphics commands list on the right to move the turtle. First, lift the pen with the PENUP command, then move to the new position with the SETPOS command, and finally put the pen down with the PENDOWN command.

Scroll down to PENUP and select this command. After it pops up in the command prototype area, click Enter (Windows) or press Return (Mac). The command shows up in the script dialog, where you can edit it, delete it, or do whatever else can be done with a text editor.

Next, to move the mouse to a position on the card; use the Turtle Graphics SETPOS command. Scroll down and select that command. The command prototype you will see is SETPOS point.

Lowercase letters signify a parameter, a local variable. You need to fill in a value here. You could just type the value right in to the command prototype. Even if you do, you can still go back and try the parameter picker.

Parameter pickers give you point-and-click selection of common parameter values. To get to the parameter picker, move the mouse over the parameter, then press and hold Ctrl (on Windows) while clicking the mouse button. On Macintosh simply click the mouse button. You'll see a pop-up menu. There are only two choices for this particular parameter: The first is <Use Keyboard>, which reminds you that you have the option of typing in the parameters. The second,
and the one you should select now, is <Use Pixel Picker>. Select the pixel picker. Dismiss the alert that shows you what is going on, and you will see a copy of the card image. Click the location at which you would like to begin. The copy of the card vanishes, and the command prototype will fill with the correct turtle graphics coordinate.

If it's a bit off, use the pixel picker again, or edit the values just as you would edit text in the script window.

Enter the prototype command in the script by pressing the return key.

The last step in positioning the turtle is to add the PENDOWN command to your script. Select the PENDOWN command from the list on the right then press return.

2. Pick a Color

This step is optional, but it demonstrates one of the coolest parameter pickers!

Pick SETPCRGB from the command list. This command sets the drawing color to any red-green-blue value you choose. That's very powerful, but how many people know that the correct number for turquoise is 0-65535?

To make the color choice easier, simply press on the parameter and choose the Color Picker from the pop-up menu. From the standard color picker used throughout the system software, pick a color and click OK. The correct RGB color values are entered into a list.

Press return to enter the command in the script window.
3. Draw the Box

Drawing a box involves moving forward and turning right four times. Repeating an action four times is a good opportunity to use a REPEAT command. Start by picking Flow of Control from the left list; this switches the commands available in the right list. Scroll down and pick the REPEAT command.

The REPEAT command has two parameters. The first is an expression into which you should type the number 4 and then hit the tab key to move to the next parameter. You can also use the parameter picker that will give you the chance to use a really cool calculator. It works like an electronic calculator. Instead of actually calculating a result, though, it creates the HyperLogo text to calculate the result in the script. Pick your method, but whichever you choose, use 4 for the expression. Once you’ve finished, press the tab key to move to the next parameter.

The REPEAT command uses a list of statements, and repeats the commands in that list as many times as specified. In this case, it will repeat the commands in the list four times. The fact that there can be more than one command in the list accounts for something rather peculiar that you’re about to see.

Enter the FORWARD command, which will draw a line. With the statement parameter highlighted, pick Turtle Graphics from the left list, then pick FORWARD from the right list. The parameter is replaced by the new command, but a new statement parameter appears right after the FORWARD command. This lets you enter as many commands as you like (or none at all). When you finally enter the prototype command in the script window, the unused statement parameter will vanish.

Moving along, enter 50 for the expression after the FORWARD command, then press the tab key to select the statement parameter again. Pick RIGHT from the
command list, and enter 90 for the angle. Finally, press return to enter the command in the script window.

This finishes up your first Click Programming script. Now leave the HyperLogo scripting environment and try the script. At some point, look through the rest of the topics on Click Programming, where you'll find descriptions of the remaining parameter pickers, comments on using variables, and two features that record how you use Click Programming and tailor the environment to help you work faster. Remember there is an entire Logo manual available on the HyperStudio Program CD.

HyperLogo Resources included on the HyperStudio Program CD

The HyperStudio Program CD includes a variety of tutorials for HyperLogo. Both Exploring HyperLogo and Click Programming with HyperLogo 3.0 contain information about using HyperLogo, and include a variety of scripts and project ideas; however, they do so in different ways.

Exploring HyperLogo with Bill Lynn is a step-by-step instructional guide for building HyperStudio projects that use HyperLogo. Exploring HyperLogo is a PDF document located in the Manuals folder on the HyperStudio Program CD. You are free to print this out for personal and academic use. Click Programming with HyperLogo 3.0 with Dawn Thompson is a stack-based tutorial with working examples and numerous ready-to-use scripts that can be freely pasted into HyperStudio stacks.

Since each tutorial offers unique ideas and methods, explore both at your own pace. Either skip around to the topics of greatest interest, or systematically complete each tutorial from start to finish.
Exploring HyperLogo - PDF Tutorial

The HyperLogo Tutorial.pdf is located in the Manuals directory (folder on Mac) of the HyperStudio Program CD. Print this PDF file to make it easier to follow the step-by-step directions for building these HyperLogo projects in HyperStudio. An accompanying set of clip art is included in the HyperLogo folder, entitled HyperLogo Tutorial Art.

HyperLogo has been significantly enhanced since Exploring HyperLogo was originally written. Although new features such as Click Programming and Online Help are not used specifically in the tutorial lessons, all of the HyperLogo scripts and HyperStudio functions work today as they did then. The variety of scripts and in depth descriptions found in this tutorial will provide you with a very solid base in learning to program with HyperLogo.

Click Programming with HyperLogo 3.0 - New Stack-Based Tutorial

To get started, launch the Logomenu.stk found in the HyperLogo folder on the HyperStudio Program CD. Click Programming with HyperLogo 3.0 provides working examples of HyperLogo that demonstrate programming concepts ranging from simple Click Programming commands to a full-blown "HyperLogo Powered" game.

The online tutorial is designed to serve two distinct purposes:

1. Demonstrates and describes many of the most basic HyperLogo concepts
2. Provides a variety of ready-to-use scripts

This means that you can learn about the Logo programming processes driving these scripts, or you can simply copy and paste scripts into your own stacks with little or no modification.
The four main areas of interest covered in Click Programming with HyperLogo 3.0 are:

- Navigation
- Manipulating Text
- Manipulating Objects
- Turtle Graphics

Each of these areas is divided into subsections. Subsection 1 and 2 demonstrate the use of Click Programming commands and Parameter Pickers. If you're feeling a bit overwhelmed by the thought of learning a whole programming language, this is the place to start. Here you will find examples of how to point and click in HyperLogo to make things happen.

Subsection 3 explores building simple procedures in the HyperLogo Script window. This is the next level in learning to program with HyperLogo. By combining several commands you will be able to create functions. Subsection 4 provides examples of more complex scripts that use several lines of code. Many of these complex procedures can be copied and pasted into your own stacks with little or no modification.

Subsection 5 of each area is a miniature application. Mini-application stacks indicate the highest level of programming covered in this tutorial. These stacks do not have all the text descriptions about the HyperLogo being used on every card. Instead they provide examples of incorporating many different scripts in a meaningful way. Play along, and then look at the Logo code, including the comments.

Click Programming with HyperLogo 3.0 also includes a two-player question and answer game named 20 Answers. This game is a ready-to-use template,
complete with instructions for customizing new games with your own questions, answers, and categories. You do not need to understand how all the HyperLogo scripts work in order to create new games.

Additionally, you will find a Quick Reference section with frequently used HyperLogo scripts for tasks such as creating alert dialogs, setting field text to display the current time and date, and special effects for your graphic and text objects.

**Other Logo Resources**

The Internet is a great resource for information on Logo and HyperLogo. Here are a few sites to get you started.

HyperLogo listserv. Subscribe at:

HyperStudio User Forum
http://hyperstudio.hyperstudio.com/cgi-bin/dnewsweb.exe

LOGO-L listserv. Subscribe at:

Logo Foundation
http://el.www.media.mit.edu/groups/logo-foundation/

ISTE - International Society for Technology in Education
http://www.iste.org/
Chapter 4
Installing HyperStudio 4.0

Installation Instructions for Windows:

1) Insert the HyperStudio CD into your CD-ROM drive. A screen showing the program name will appear. This is called the splash screen.

If the install program does not start, find Hssetup.exe on your CD-ROM drive and double-click on it to begin the install. Alternately, you can use the Windows Start button, select Run… and type in D:\Hssetup.exe (where D is your CD-ROM drive) and select OK.

2) A message will appear that the installer program is searching for certain programs.
3) The HyperStudio v.4 End User License Agreement will display. Use the scroll bar to view more of the agreement. Select I Disagree or I Agree.

TIP#1: A button with a darkened border is considered the default selection when the Enter key is pressed.

TIP#2: The underlined letters on the buttons identify the shortcut keys used to select the button instead of using the mouse.

4) If you should decline the agreement or cancel out of the forthcoming dialog boxes, a confirmation dialog will appear. Select Resume or Exit Setup.
5) A dialog will appear that welcomes you to the program. The date the program was released and the version number are also displayed on this dialog. Select **Next** or **Cancel**.

6) A dialog will appear giving you options for installing the program. The easy option lets the installer do all the work. It will even launch the QuickTime and Acrobat Reader installer programs if they are missing or are older versions. The custom option lets you decide what to install on your hard drive. Select **Easy** or **Custom**. Then select **Back**, **Next**, or **Cancel**.
7) A dialog will appear letting you know that the installer is ready to copy the necessary files, including some fonts, from the CD to your hard drive. Select Back, Next, or Cancel.

8) A dialog will appear that shows you the progress of the installation. To stop the installation select Cancel.
9) A dialog will appear that lets you know the installation of HyperStudio has been completed. Select Finish.

NOTE: If QuickTime 4 or Acrobat Reader 4 do not exist on your computer, installers for these products will automatically start. Just follow each of the prompts to complete these installations.

CUSTOM OPTION

10) A dialog will appear for you to identify the directory where you want HyperStudio installed. A default directory is shown but can be changed using the Browse button. Select Back, Next, or Cancel.
11) A dialog will appear for you to select which components to install. Click in the box next to each component you wish to install. Disk space required and remaining are also displayed on the dialog. Select Back, Next, or Cancel.

12) A dialog will appear for you to identify the program manager group where you want HyperStudio icons to be placed. The icons will show up under the Start Menu>Programs selection of folders. A default folder name is shown but can be changed. Select Back, Next, or Cancel.
13) A dialog will appear asking if you would like a shortcut placed on your desktop. The default is yes and is shown by the checkmark in the box next to the reply. Select **Back**, **Next**, or **Cancel**.

14) A dialog will appear letting you know that the installer is ready to copy the necessary files from the CD to your hard drive. Select **Back**, **Next**, or **Cancel**.

15) A dialog will appear that shows you the progress of the installation. To stop the installation select **Cancel**.
16) A dialog will appear that lets you know the installation of HyperStudio has been completed. Select **Finish**.

**TO START THE PROGRAM:**

1) Locate the shortcut that was created on your desktop. Double-click the icon to start the program

-- or --

go to the Windows start menu and select Programs. Select HyperStudio or the name you specified during a custom installation. Then select HyperStudio 4.0.
4) A registration dialog will display upon the first launch of the newly installed HyperStudio program. Enter your name and the registration number for the product. You can find the number (15 characters in length) on your current HyperStudio 4 license agreement. Select **Cancel** or **OK**.

If you cannot locate your registration number, please call Knowledge Adventure Customer Service at 800-545-7677.
For Macintosh

1. Insert the HyperStudio CD into your CD-ROM drive. A HyperStudio CD icon will appear on your desktop.

2. Double-click the HyperStudio CD icon to open the disk, if necessary. Find the HS4Installer.

3. Double-click the HS4Installer icon to begin the installation.
4. The first screen of the installer program appears. This is called the splash screen. Select Continue.

5. The HyperStudio v.4 End User License Agreement will display. Use the scroll bar to view more of the agreement. Select Print, Save As, Decline, or Accept.
6. The HyperStudio Read Me file will display. Use the scroll bar to view more of the text. Select Print, Save As, or Continue.

EASY INSTALL

7. A dialog will appear for installing the program. Choose the Easy Install. You can also select the location where the files will be installed or view the Read Me file by selecting the Read Me... button. Select Quit or Install to continue.
8. A dialog will appear that shows you the progress of the installation.

9. A message letting you know that the installation was successful will appear. Select **Quit** to exit the installation program.

You’re done!

(Other installation programs such as QuickTime will launch if the HyperStudio Installer program determines that you need these programs. Just follow the prompts to complete the installation(s).)

### CUSTOM INSTALL

1) A dialog will appear giving you options for installing the program along with disk space information. Choose the Custom Install. Select which components to install by clicking on the check boxes. You can also select the location where the files will be installed. Select the **Read Me...** button to view the Read Me file. Select **Quit**.
Read Me file. Select **Quit** or **Install** to continue.

2) A dialog will appear that shows you the progress of the installation.

2. A message letting you know that the installation was successful will appear. Select **Quit** to exit the installation program.

You’re done!

(Other installation programs such as QuickTime will launch if the HyperStudio Installer program determines that you need these programs. Just follow the prompts to complete the installation(s).)
TO START THE PROGRAM

1) Double-click the HyperStudio 4.0 icon to start the program.

2) A registration dialog will display upon the first launch of the newly installed HyperStudio program. Enter your name and the registration number for the product. You can find the number (15 characters in length) on your current HyperStudio 4 license agreement. Select Cancel or OK.

If you cannot locate your registration number, please call Knowledge Adventure Customer Service at 800-545-7677.
Uninstall Instructions for HyperStudio v.4

For Windows:

1) Click the Start button on the task bar. Highlight Settings, then click Control Panel. Click the Add/Remove Programs Icon.

2) A dialog will appear with HyperStudio 4 listed.
3) A dialog will appear that welcomes you to the uninstall program as well as giving you options for uninstalling the program. The automatic option lets the uninstaller do all the work. The custom option lets you decide what to uninstall from your hard drive. Select **Automatic** or **Custom**. Then select **Next** or **Cancel**.
AUTOMATIC OPTION

1) A dialog will appear letting you know that the uninstaller is ready to remove the HyperStudio 4.0 program from your hard drive. Select **Back**, **Finish**, or **Cancel**.

2) A dialog will appear that shows you the progress of the uninstall program. To stop the uninstall select **Cancel**.

3) If there are any residual files left in a HyperStudio folder, inspect them before deleting the files and the HyperStudio folder.

**You’re done!**
CUSTOM OPTION

1) A dialog will appear allowing you to select which files to remove. Use the Select All button to select all the files or click to highlight each file you want to select. To de-select a file, click again to remove the highlight or use the Select None button to de-select all the files. Then select Back, Next, or Cancel.

2) A dialog will appear allowing you to select which directories to remove. After making your selection(s), select Back, Next, or Cancel.
3) A dialog will appear allowing you to select which registry keys to remove. After making your selection(s), select **Back**, **Next**, or **Cancel**.

4) A dialog will appear letting you know that the uninstaller is ready to remove the HyperStudio 4.0 program from your hard drive. Select **Back**, **Finish**, or **Cancel**.
5) A dialog will appear that shows you the progress of the uninstall program. To stop the uninstall select **Cancel**.

6) If there are any residual files left in a HyperStudio folder, inspect them before deleting the files and the HyperStudio folder.

**You’re done!**

**For Macintosh:**

Simply drag the HyperStudio folder into the trash. Don’t forget to empty the trash to free up space.

That’s it!
Chapter 5
HyperStudio Step-by-Step Tutorial

A Brief History of Writing

Here are step-by-step instructions for using HyperStudio to build a five-card project that creates a timeline about the history of writing.

Create your first HyperStudio project!

✓ Navigate menu features and learn to create cards that build into stacks.
✓ Discover how to use text and graphics.
✓ Learn how to add images and sounds from peripheral equipment such as scanners and CD-ROMs, clips from QuickTime movies, and hyperlinks.

When you see this icon, the information enclosed in the box to its right is about the history of writing. You may choose to read the information or you may skip it. Skipping it will not affect the tutorial materials.
Section 1 Moving within the Menu

Section 1 should take approximately 45 minutes to complete.

Explore these essential features:
▶ Project Overview
▶ New Stack
▶ Dialog Box
▶ Browse Tool and Edit/Selector Tool
▶ Preferences
▶ “Drag-and-Drop”
▶ Import Background
▶ Media Window
▶ Paint Text Tool
▶ Moving Painted Text
▶ Four-Headed Arrow Cursor
▶ Add Clip Art
▶ Double-Headed Arrow Cursor
▶ Lasso Selector Tool
▶ Practice with Tools and Colors
▶ Add a New Card
▶ Erase Background
▶ Add a Button
▶ Actions Dialog Box
▶ Transitions Dialog Box
▶ Save Stack
▶ An Extra Challenge – Scale and Flip an Image

Project Overview

Here is what your first card might look like when completed. It’s titled, “Prehistory: Lascaux Cave Paintings,” from the stack you will create called, “A Brief History of Writing.”
Once you have HyperStudio installed, you are ready to begin. HyperStudio opens with the Tip of the Day! stack - handy notes on shortcuts and features. These tips will mean more to you after you finish the tutorial.

Be sure to click the Home Button in the lower right corner. The Home Stack is designed to acquaint you with HyperStudio’s features. The Discover stacks
include Student Projects, Teacher Lessons, and User Projects. The Learn stacks include The Essentials, HyperLogo, Easy Effects, and the Content Library. The Excel stacks include Workshop in a Box and links to websites.

**Dialog Box**

Are you ready to begin? On the Tip of the Day! page or the Home Stack, click the New Stack button. Or, click the **File** menu and select New Stack. IMPORTANT: If the **File** menu is not present, type Ctrl M or Command M.

A dialog box will appear on the screen. Dialog boxes help you through complex procedures. Read the contents of this one, and then click Yes. HyperStudio creates a new card for you to begin your project. Notice the top menu reads, Untitled - Card 1.

![Dialog Box Image](image.png)

**Browse Tool and Edit/Selector Tool**

Notice your cursor. The small hand is called the Browse tool. The person who views your stack will use this tool. You will also use the Browse tool to check various card and stack actions. Click the word **Tools** on the menu bar.

The arrow icon located on the right is called the Edit/Selector Tool. You will use this tool for creating your stack.
**Shortcut:** You will be switching between the Browse tool and the Edit/Selector tool often as you work on your stack. Try the keyboard shortcut, Shift Tab, to toggle back and forth quickly between the Browse and Edit tools.

**Preferences**

Click the **Edit** menu and select Preferences. The Preferences dialog box will appear. Under Program preferences, make sure that the box is *not* checked for I’m an experienced HyperStudio user. HyperStudio will give you helpful prompts while you’re learning the program. Be sure the rest of the options are checked or left unchecked as shown in the following illustration.

![Preferences Dialog Box](image)

Choose OK to return to the card.

**“Drag-and-Drop”**

Drag-and-Drop is a term for a simple method of moving text and graphics. The actual steps are to click and hold the mouse on a selected or highlighted object, drag it to a new location, and release the mouse. You will use this method in many HyperStudio functions. Use it first to move the Tools palette from the menu bar to the side of your card where it will remain open for easy access. The Tools palette is a collection of basic tools used to create all sorts of visual effects.
To drag-and-drop the toolbox where it is easy to use:

1. Move the cursor over the word Tools on the menu bar, click, and hold down your mouse button as you drag the box. A copy of the Tools palette will tear away.

2. Drag the Tools palette to the left side of the card.

3. Release and drop the Tools palette into position.

That’s it! Drag-and-drop!

Now do the same with the Colors palette, but set it to the right of the card.
To close either palette, click on its upper left corner.

Now is a good time to practice using the shortcut, Shift Tab, to switch back and forth between the Browse and Edit tools. Notice how the selected tool becomes highlighted on the Tools palette.

**Import Background**

The options for backgrounds are vast—you can use a plain color background or import backgrounds and clip art images from HyperStudio’s collection of art.

For your first card, you will import a background from the Media Library.

1. Click on the Options menu and select Show Media Window.

2. Select Backgrounds in the pull-down box, and check the Preview box to open the preview window.

3. Locate the CaveInterior.bmp file and click on it. A preview will appear in the window.
4. Using the Edit/Selector tool (the arrow), depress the Alt/Option key and drag-and-drop the Cave Interior file (the words, not the preview picture) from the Media Window onto the card. The Drop Options dialog box appears.

5. Select Import background... and choose OK. Another dialog box opens.

6. Choose Yes to resize the image to fit the card.

7. The background image will appear on the card.
Your background is ready for you to begin.

**Media Window**

To move the Media Window so you can see your card better, click on its Title bar and drag-and-drop it to the side of your card. Or, minimize the Media Window by clicking on the upper left corner of the box. Select minimize from the drop-down menu that appears, and the Media Window will be stored as a button (Media Browser or Media Window) on the Tool Bar at the bottom of your computer screen. To minimize the Media Window in Macintosh, click on the upper right corner of the Media Window. To restore it in Windows, just click on it and the window will appear in the position it was in before it was minimized. To restore it in Macintosh, click on the top left corner of the Media Window Title bar.

*Cave as Canvas...* Historians speculate that the process of painting was, in itself, a ritual in which the cave artists engaged. They may also have painted to record information or express themselves.

You are going to create a simulation of a cave painting. How much easier it is to apply images to a computer screen than to a damp, dark cave wall!
**Paint Text Tool**

The Paint Text tool (T) paints text on your card. Painted text becomes a permanent part of the background. You can choose from a variety of fonts, sizes, and colors for your text. You will use the Paint Text tool (T) to give your card a title.

To use the Paint Text tool (T):

1. Click **Format** and select **Text Style**....

2. From the **Text Style** dialog box, we selected these text characteristics (you may choose any others):
   a. Font Schoolboy
   b. Font Style Plain
   c. Font size 14 or 16
   d. Text color Dark brown

3. Choose OK.

4. Click on the **Tools** menu and select the Paint Text tool (T).
5. The Edit/Selector tool (the arrow) turns into an I-beam cursor when it is moved onto the card. Place it to the left of center on the card and type:

PREHISTORY
Lascaux Cave Paintings

If you make an error or wish to change the font style, color, or size, use the backspace key to correct mistakes, or click **Format** and select Text Style **before** clicking away from your text. When you click away from the text, it becomes permanently painted to the background.

### Moving Painted Text

1. From the **Tools** menu, select the Square Selector tool. (This looks like a square made of dotted lines.)

2. The cursor becomes a crosshairs. Position it in one corner of the title, then click and drag it diagonally across the title. A square of dotted red lines will appear. Release when the square outlines the title. The dotted red line surrounding the image indicates that it is “selected” or “highlighted.” This means that an object or image (in this case, text) on the card may be moved, resized, or edited.

### Four-Headed Arrow Cursor

3. Move the cursor over the title. The four-headed arrow cursor appears. Use this cursor to reposition the title by dragging it to the top left corner of the card and dropping it in place.
4. Move the cursor outside the dotted red lines and click. Your title is now repositioned. Use this method to move any part of the background.

**Add Clip Art**

Now that you have a background, a title, and your Tools palette is placed where you want it, it is time to learn about adding images to your card. The Media Library contains a variety of clip art images, which you can select, modify, and add to your card. (You can import clip art from other files, too, by clicking **File** and selecting Add Clip Art.) For your first card, you will select the image of a bison from the HyperStudio Tutorial folder to apply to the cave wall background.

1. From the Tools palette, select the Edit/Selector cursor (the arrow).

2. Restore the Media Window by clicking the Media Browser button on the Tool Bar at the bottom of the computer screen.

3. Select Clip Art from the drop-down menu (be sure the Preview box is checked).

4. Find the CaveBison.jpg file, depress the Alt/Option key, and drag-and-drop the file onto the card. In the **Drop Options** dialog box, select Lasso the clip art and choose OK. Click outside the image to set it in place. (Minimize or move the window out of the way after use.)
**Double-Headed Arrow Cursor**

Let’s make the bison larger.
1. Select the bison using the Square Selector tool 🟢.

2. Using the crosshairs, draw a box around the bison to select it (it will become surrounded by a dotted red line).

3. Move the cursor to the corner of the selected image. It will turn into a double-headed arrow cursor.

4. Make the bison larger by pulling the double-headed arrow cursor in the corner away from the center of the image.

![Double-Headed Arrow Cursor](image)

Click outside the image to set it in place.

Move the cursor onto the newly enlarged image (it turns into a four-headed arrow cursor) and click and drag the bison to the right side of the card.

**Lasso Selector Tool**

We are now going to move the bison to a different location on the card. Use these steps any time you want to move clip art after you have set it in place.

1. From the Tools palette, select the Lasso Selector tool (it looks like a lasso 🧨).

2. While depressing the mouse key, draw an outline around the bison.
3. Release the mouse button. The image of the bison is covered in flashing red lines, indicating it has been captured.

![Image of bison covered in red lines]

4. Move the cursor over the image until the cursor turns into the four-headed arrow.

5. Click the mouse, and drag-and-drop the bison to the lower right side of the cave.

6. Click outside the image to set it in place on the card. Your card should look something like this:

![Image of final card design]
Note: While using any selector tool, if what you’re trying to do doesn’t work, click outside the image to deselect it. Click File, select Undo move, and try again.

Practice with Tools and Colors

Colors are selected from the Colors palette. Click the Colors menu to open the palette. This palette can be torn away and placed on your screen by using the same drag-and-drop method as for the Tools palette.

Early Cave Artists... Historians believe that early cave artists might have applied pigment to the cave wall by using a spray technique. Prehistory artists mixed their colors from minerals and natural oxides. They used a natural palette of yellows, reds, blacks, browns, and violets—no greens or blues. Archaeologists have found hollow bones stained with these pigments. They believe that early artists blew through these hollow bones to spray colored paint onto the cave walls.

The Colors palette offers a wide range of colors and pattern options for your work. Plus, no sticky wax or tallow binders are necessary to get your paint to stick to your “cave wall!”

To apply color and draw with the Spray Can tool:
1. Click the Colors menu to view the palette if it is not open on the screen.
2. Place the Edit/Selector cursor on a color (try medium brown) and click to select it.
3. From the Tools menu, click on the Spray Can icon.
4. The cursor turns into a spray can. Move it to the lower left corner of the card, and press the mouse to deliver a spray of paint.

Use the Spray Can tool to freehand draw another bison like the one you obtained from Clip Art. Experiment with style by depressing the mouse key and moving the mouse to apply color evenly, or pulse the mouse key between moves to achieve a stippled effect. Hold the can in place or move it back and forth while spraying to create dark and light layering effects.

Add even more depth to your drawing by selecting a new color to layer over a previous one. For instance, you might want to try layering reds and yellows on top of darker browns and blacks.
Bison, deer, antelope, and human figure drawings are common subjects of early cave paintings. Try creating any of these subjects on your card. Prehistory images were never on a ground line; they seem to “float,” so place your artwork anywhere you like!

Take a few minutes to play with the draw tools. Select different colors and practice drawing a bison using the Spray Can, Pencil, and Paintbrush tools. To vary the Paintbrush, click Options and select Brush Shape to change the shape and thickness of the brush stroke. It doesn’t matter if it isn’t perfect – it’s cave art! Don’t forget, you’ll get better as you practice.

If you wish to remove any of your art, go immediately to the Edit menu and select Undo Painting. This will reverse the most recent procedure performed. Or, use the Eraser tool. It’s white by default, but its color can also be selected. Go to the Options menu and choose Set Eraser Color. It will now “erase” with the selected color.

Caution: Be careful! The Eraser tool will erase any background images, including clip art and painted text!
Add a New Card

You have completed the art for the first card of your stack, “A Brief History of Writing.” Now you need to add a Button so you can move easily to the second card in your stack. The first step is to add the second card.

From the Edit menu, select New Card. You are now on Card 2 of your stack. Notice the card’s Title bar says, “Untitled – Card 2.”

Erase Background

If you previously selected a color for the Eraser tool, that color will be the background color of Card 2. The color can be changed by clicking Edit, selecting Choose Erase Background, selecting white for the new color, and choosing OK.

Cave Artists’ Painting Techniques... Another theory of how cave artists painted is that they punched small holes in a thin animal skin that held vegetation fibers soaked with pigment. When placed against the cave wall, this painting tool allowed small amounts of pigment to ooze out. Using a sponge-print technique of layering pigment may have given artists more control over their medium.
Move back to Card 1 by clicking Move and selecting Back. You are now on the first card.

**Shortcut:** To move quickly back and forth between cards, use Control/Command > to move forward and Control/Command < to move back.

**Add a Button**

In HyperStudio, users can or navigate from card to card and stack to stack by clicking a Button. Buttons, however, offer many more features than simply moving the viewer through a stack, as you shall later see.

1. Click the **Objects** menu and select Add a Button.

2. A **Button Appearance** dialog box will appear.
   
   To choose a Button Type:
   
   a. Select number 1 from Type palette (the default shape).
   b. Name the Button by typing the word “Next” in the name field box in the **Button Appearance** dialog box.
   c. Color the Button by selecting yellow for the name and dark brown for the background of the Button.
   d. In the bottom left corner of the **Button Appearance** dialog box, check the Show Name and Highlight boxes.
   e. Choose OK.
3. A prompt will give you directions about where to place your Button and how to locate the Button on your card. Choose OK.

4. The Button you just created will appear in the center of your card, outlined with dotted red lines. Place the cursor on top of your newly created “Next” Button. The four-headed arrow cursor will appear.

5. Using the Drag-and-Drop method, position the image near the bottom center of the card. Click outside the Button image to set the Button in place. This opens the **Actions** dialog box.
Actions Dialog Box

The new button has an appearance and position on the card. Now, it needs some action!

1. The Actions dialog box has two columns: Places to Go, and Things to Do.

2. From Places to Go, select Next card. This will open the Transitions dialog box.

Transitions Dialog Box

The Transitions dialog box has options that will determine how your HyperStudio cards will open or close (e.g., fade, come in from the left, etc.). You can also choose the speed at which you want the card to open or close.
1. Experiment with the different transition and speed effects by choosing Try It. When you have achieved the effect you want and made the settings, choose OK.

2. In the **Actions** dialog box, choose Done.

Try out your Button. Remember, the Edit/Selector tool will not activate card features. You must click **Tools** and select the Browse tool, (the hand.) Then, click on the Button to go to Card 2. Use the Move menu to return to Card 1 or use the shortcut, Control/Command <.

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**Save Stack**

It’s a good idea to save your work frequently.

To save your two-card stack:

1. Click the **File** menu and choose Save Stack.

2. The **Save As** dialog box appears. Name the stack **HistoryofWriting**. Save the stack in the HyperStudio directory, in the MyStacks folder. Double-click the folder to open it, and save your stack there, or right-click your mouse and create a new folder. Be sure to remember where you put your stack!

3. Click Save.
Tip: If you wish to save a copy of the stack to another location, click File and select Save Stack As..., and follow the steps above. If you wish to save your stack under another name, you can use this same method.

An Extra Challenge – Scale and Flip an Image

This addition to the first card of the stack is optional.

Add a Clip Art Cave Painter

1. Using the techniques learned in this section, import the Caveman.bmp image from the Clip Art folder in the Media Library by using the Media Window. Drag the file onto the card while depressing the Alt key.

2. In the Drop Options dialog box, select Crop the clip art... and choose OK.

3. In the Clip Art dialog box, double click the Square selector tool to select the caveman and choose Scale and Rotate.

4. In the Scale and Rotate dialog box, set the scale factor to 80% and choose OK.

5. Select the scaled caveman by double clicking the Lasso selector tool and choose OK. The caveman appears in the middle of the card, still selected.

6. To flip the caveman (it’s still selected), click Edit and select Effects.

7. Select Flip Sideways.

8. Use the four-headed arrow cursor to place the caveman anywhere you like on the card.
The Effects command has many different options for changing the appearance of images. Try some of the others, like Scale and Rotate, Flip Upside Down, or Replace Colors.

You may Quit HyperStudio and take a break, or continue with Card 2 now.

To recap, in Card 1 you

- Created a new stack
- Imported a background image using the Media Window
- Added a title using Painted text and moved it
- Imported, enlarged, and moved a clip art image
- Explored using the paint tools
- Added a new card (Card 2)
- Added a Button to move to Card 2
- Scaled and rotated an image
- Gave the stack a name and saved it
Section 2  Creating with Cards: Starting with Stacks
Section 2 takes approximately 1 hour to complete. Explore these essential features in this tutorial:

- Open a Stack
- Add a Background
- Edit to Make a Clip Art Border
- Use the Paint Bucket Fill Tool
- Add More Clip Art
- Scale an Image
- Use the Magnifying Tool
- Import an Image from the Media Library
- Use the Rounded Rectangle Tool
- Copy and Resize Art
- Create Navigation Buttons from Background Images (Clip Art)
- Add Icons to Buttons
- Add Sound to a Button
- Add a Text Object
- Add a Graphic Object
- Rotate an Image
- Add Ready-Made Animation
- Add Sound to a Graphic Object
- Save Stack As…

Project Overview

Here is an example of how your second card, “Ancient Times: Egyptian Hieroglyphics,” could look when you are finished with this section. Remember, your card can look any way you want.
Open a Stack

To open your stack, click on the Open Stack Button on the HyperStudio Home Page or choose the File menu and select Open Stack. Do this every time you return to the tutorial after exiting the program.

A dialog box may ask if you are sure you want to do this. Click Yes.

The Please Select a Stack dialog box appears. If you saved your Timeline stack in the HyperStudio folder, it will appear after the folders, to the right. If you saved it in a folder such as MyStacks, double-click the folder icon to see your stack name and icon.

Select the stack and click Open or double-click the stack to open it.

Card 1 will appear on your screen. Click Tools, select the Browse tool, and click on the Next Button to move to the second card in your stack.

HistoryofWriting or HistoryofWriting.stk - Card 2 appears on the Title bar above the card.
Add a Background

Some of the clip art in the Media Library comes surrounded by a border. You may want to add just the border, but without including all other clip art in the image.

To add a clip art border to Card 2:
1. Click on the **Options** menu and select Show Media Window.
2. Select Clip Art in the pull-down box, and check the Preview box to open the preview window.
3. Locate the EgyptianArt.jpg file and click on it. A preview will appear in the window.
4. Using the Edit/Selector tool, drag-and-drop the EgyptianArt file onto the card while depressing the Alt/Option key.
5. In the **Drop Options** dialog box that appears, select Import background…
6. Choose Yes to resize the image to fit the card.
7. The background fills the card. Minimize or move the Media Window out of the way.

Edit to Make a Clip Art Border

8. To cut out the interior images, click the **Tools** menu and select the Square Selector tool. Set the crosshairs cursor just inside the upper left corner of the border, and drag the mouse to just inside the bottom right corner of the border. A dotted red line will enclose all of the artwork to be removed from the card.
9. Now click **Edit** and select Cut (Ctrl X or Command X), or press the Delete key to remove the artwork. The clip art border remains on the card.

**Use the Paint Bucket Fill Tool**

10. Finally, use the Paint Bucket Fill tool to fill the center of the card with the lightest shade of gray on the Colors palette. Click the Colors palette and select the color, then click on the Paint Bucket Fill tool on the Tools palette. Position the Fill tool anywhere in the center area and click. It will fill with light gray!

Your card will look like this:
Now that the background and border are in place, let’s title the card “Ancient Times: Egyptian Hieroglyphics.” Follow the steps you learned for Card 1 to make a title. Choose any font, size, and color text you desire. Remember, painted text becomes a permanent part of your background. Before you paint on the text, you should save the stack. That way, if you make an error, just exit, don’t save changes, and reopen your stack. Then paint again.

Cuneiform and Hieroglyphs... Scribes carved and painted tomb walls to tell the stories of rulers and the history of their civilization. Cuneiform was probably evolved from the picture writing of the Sumerian people. This language was based on combinations of wedge shapes carved in stone. The earliest known cuneiform inscriptions were found in the lower Tigris-Euphrates Valley, and dated from about 3000 BC. The most recent example of a scribe’s handiwork was written about A.D. 75.

Hieroglyphs are symbols and signs called ideograms. These picture forms represent an object, action, or idea. For instance, a symbol of the sun could represent ideas of time or weather. Egyptians advanced this early picture-writing system to a form of writing known as hieroglyphics, which were written on tomb walls, monuments, papyrus, and other Egyptian artifacts. For centuries, this form of picture writing was a mystery to recent cultures because no one could decipher the symbols. The first event that led to cracking the code occurred when Napoleon’s soldiers discovered the Rosetta stone.
Add More Clip Art: French Soldiers and the Rosetta Stone

On Card 2 you will add images of French soldiers and ancient picture writing. Geometric patterns known as cuneiform are the earliest form of Egyptian writing.

The Discovery of the Rosetta Stone... In 1799, Napoleon ordered a troop of his engineering corps to clear a section of land for Fort Julien. In the process, his soldiers found a huge black stone half buried in mud on the bank of the Nile near the village of Rashid, which Europeans translated as “Rosetta.” This impressive stone was covered with three distinctive bands of curious markings and symbols.

1. Find the FrenchSoldiers.bmp file in the Clip Art section of the Media Window.

2. Using the Edit.Selector tool, drag-and-drop the file on the card while depressing the Alt/Option key to open the Drop Options dialog box. Select Crop the clip art... and choose OK.

3. Use the Square Selector tool to capture the image of the French soldiers in the Clip Art dialog box. Choose Scale and Rotate.
4. In the **Scale and Rotate** dialog box, enter 75 in the Scale factor window and choose OK.

5. Now capture the new smaller image in the same window, by double clicking the Lasso Selector tool in the **Clip Art** dialog box and choose OK.

6. The selected image is now encircled by dotted red lines and has been transferred to Card 2.

7. Move the cursor over the image you transferred. It changes to a four-headed arrow cursor. Reposition the image of the soldiers to the bottom right corner of Card 2.

8. Click outside the image or press Enter to set the image in place. The dotted red lines disappear, indicating that the picture of the French soldiers discovering the Rosetta stone has been added to Card 2.
The Rosetta Stone... It is believed that the Rosetta stone had been part of a wall built around 200 B.C. After the discovery of the stone, it was shipped and stored in Cairo. As part of the spoils of the Napoleonic Wars, it was later stolen and moved to England. Today the Rosetta stone is a centerpiece at the British Museum in London. This huge stone is a thick slab of black basalt, weighs three-quarters of a ton, and measures 3’ 9” by 2’ 4”.

9. Repeat the procedure described above to insert an image of the Rosetta stone from Clip Art Library. Drag the RosettaStone.bmp file from the Media Window to the card while depressing the Alt/Option key. When the Drop Options dialog box opens select Crop the clip art… and choose OK.

10. Capture the image of the Rosetta stone using the Square Selector tool and choose Scale and Rotate.

11. When the Scale and Rotate dialog box opens, change the number in the window to 40% and choose OK.

12. Use the Lasso Selector tool to capture the edited image of the Rosetta stone and choose OK. Move the Rosetta stone to the lower left corner of the card and click outside it to set it in place.
Solving a Riddle of the Ages... The language and history of ancient Egypt puzzled scholars for hundreds of years. It wasn’t until 1822 that the symbols and pictures were deciphered by Jean Francois Champollion, a French scholar who spent most of his life trying to decipher the writing on the Rosetta stone. The clue that made this possible opened up the entire language of the ancient Egyptians.

Examining the Rosetta stone... The Rosetta stone displays three bands of writing, each of which describes the deeds of the King of Egypt, Ptolemy V Epiphanes, during his reign from 203-181 B.C. Each band is written in a different language: hieroglyphics, Demotic, and Greek.

The top row is hieroglyphs, an early form of an ancient Egyptian alphabet, and is made up of symbols that represent objects as well as sounds. The middle band of writing, Demotic, was a simpler, everyday kind of writing. The bottom band of writing on the Rosetta stone is yet another translation of Ptolemy’s deeds. This writing is in early Greek script. Until 1822 no one could decipher the curious symbols and pictures, and little was known about early Egyptians.
Use the Magnifying Tool

1. Click on Tools. Select the Magnifying Glass tool. The Magnifying Glass tool changes to a box cursor. Move the box cursor over the image of the Rosetta stone you placed on your card.

2. By clicking the mouse you can enlarge segments of the image by 200%, 400%, and 800%. A small window shows you the unmagnified size of the image. Close this window by clicking the upper left corner, or move it out of the way by clicking on the top bar and dragging-and-dropping it at the edge of your screen.

3. To return to the 100% normal view, continue to click the mouse or press the Escape key on your keyboard.

The Names of Royalty... Champollion’s quest to decipher the stone was assisted by the famous British scientist, Thomas Young. By examining the symbols and making comparisons, Champollion and Young figured out that the names of ancient Egyptian royalty were designated in a special way. Scribes either chiseled or drew a rounded rectangular outline, called a cartouche, around the names of royalty. Even Cleopatra’s cartouche was inscribed on the Rosetta stone.
(Note the hieroglyphic band outlined by a rounded rectangle on the Rosetta stone. This cartouche contains the clue that helped Champollion crack the code—the hieroglyphic symbols that represent Pharaoh Ptolemy’s name!)

Champollion

Another way to enlarge images on the card is to click Options and select Magnify. This feature magnifies the contents of the entire card. Choose 200% magnification.

Look closely at the “code cracker.” Select 400% or 800% magnification and practice zooming in to magnify the cartouche of Ptolemy. In a following section you will use the Magnifying tool to edit images on a pixel level with the Paint tools allowing you to make very small changes to an image. For now, just look at the enlargements of a cartouche. Notice the rounded rectangle around Ptolemy’s name.

Click on the Options menu, select Magnify, and choose 100% to return to the regular card view.

Return to Tools and select the Browse tool (or use Shift Tab).

Like the Egyptian scribes, you will draw a cartouche-like shape around Ptolemy’s name. Instead of using a hammer and chisel, though, you will experiment with HyperStudio’s easy-to-use Rounded Rectangle tool.

The Cartouche... Understanding the meaning of the cartouche allowed Champollion and Young to unlock the code and decipher the hieroglyphs. Using the Greek text as a guide, they studied the position and repetition of proper names. They found the same names in the Egyptian text, and thus were able to learn the sounds of many of the Egyptian hieroglyphic characters.
Import an Image from the Media Library

Now, to examine the cartouche in greater detail, import a full-size image of it from the Media Library.

1. From Media Window, select the RosettaStone.bmp file.

2. Drag the Rosetta stone file onto the card while pressing the Alt/Option key.

3. In the dialog box, select Crop the clip art and choose OK.

4. Using the Square Selector tool, capture Ptolemy’s cartouche from the center of the Rosetta stone and choose OK.

5. Use the four-headed arrow cursor to move the cartouche to the lower left corner of Card 2 (on top of the Rosetta stone image).

Next you will add a broad border around the cartouche.

Use the Rounded Rectangle Tool

1. Click the Options menu and select Line Size.

2. From the Line Size dialog box select the medium width line. Click OK.
3. Return to the **Options** menu and select Draw Centered. This option allows you to place the cursor in the center of the image of Ptolemy’s cartouche, and draw from a center point instead of from a corner.

4. Click on the **Colors** menu and select any color you like (we chose dark red).

5. Click on the **Tools** menu and select the Rounded Rectangle tool. The tools such as the Line tool, Pencil tool, Rectangle tool, Rounded Rectangle tool and the Oval tool are all used for drawing shapes on the background.

6. Place the crosshairs cursor in the middle of the image of Ptolemy’s cartouche, and drag the cursor to a corner of the cartouche to fit around Ptolemy’s name. Release the mouse to set the rounded rectangle border around the hieroglyphs representing Ptolemy’s name.

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**Copy and Resize Art**

1. From the **Tools** menu, select the Square Selector tool. Use the crosshairs cursor to capture the cartouche and its border.

2. Click the **Edit** menu and select Copy (or Ctrl/Command C).

3. Click the **Edit** menu again and select Paste (or Ctrl/Command V).

4. Move the cursor back over the selected image. As you move across the image you will note that the cursor changes to a four-headed arrow cursor.

5. Move the copy of the cartouche to the bottom right corner of the card.

6. To enlarge the copy, move the four-headed arrow cursor to a corner of the cartouche. The four-headed arrow cursor changes to a double-headed arrow cursor. Click and drag the corner out to enlarge the image.
**Note:** Another way to resize an image is to click **Edit**, select Effects, and then select Scale and Rotate. To try it with this image, enter 150% in the Scale Factor window and choose OK.

Move the cursor outside the dotted red lines and click the mouse to position the image.

As you know, HyperStudio users move through cards and stacks by using Buttons. Buttons are also used to activate multimedia elements like sound, video, animation, and other feature actions.

In the last section, “Prehistory: The Lascaux Cave Paintings,” you designed a “Next” Button to move to the next card, “Ancient Times: Egyptian Hieroglyphics.”

On that first card of the stack, “A Brief History of Writing,” you used a HyperStudio pre-designed Button shape from the Button Type palette. Now, for the second card, design your own Buttons by using the Lasso Area Button to select a clip art image from the card’s background.
Create Navigation Buttons from Background Images (Clip Art)

1. Click **Objects** and select Add a Button. The **Button Appearance** dialog box will appear.

2. From the Button Type palette, select the Lasso Area Button (number 8).


4. Locate the smaller cartouche of Ptolemy on the bottom left. Draw around the cartouche of Ptolemy with the Lasso cursor.

5. A prompt appears stating, “Your button shape has been defined.” Note: The image you lasso must have a defined shape. To change this image into a Button, choose OK.

6. The **Button Appearance** dialog box returns. In the bottom left of the Button Appearance dialog box, check Show Icon.

Add Icons to Buttons

1. The **Icons** dialog box opens. Select the left-facing white arrow icon and choose OK.

2. Close the **Button Appearance** dialog box by choosing OK

3. The **Actions** dialog box appears. Under Places to Go, select Previous Card.

4. From the **Transitions** dialog box, select any transition and speed. Choose OK and then Done.
5. Change to the Browse tool by pressing Shift Tab to check your new Button.

Clicking this Button should transport you to Card 1. Now go to Card 2 to create a Button that moves you to Card 3; achieve this by repeating the steps above and using the larger cartouche from the bottom right corner. Select the right-facing white arrow from the Icons dialog box. In the Actions dialog box, select Next Card. Make selections in the Transitions dialog box.

**Add Sound to a Button**

After the Transition has been chosen, select Play a sound… from Things to Do in the Actions dialog box. The Digital Audio Deck dialog box will automatically open.
1. Select EXITNOTE.WAV or any other choice from the Sample sounds shown in the window. Choose OK.

2. The **Actions** dialog box reappears. Choose OK, then Done.

You now have two buttons, one to go to the next card, and one to go back. You have chosen the shape of your button, and added a sound effect. Take a deep breath; you’re on the home stretch.

Now, in preparation for continuing your stack, add Card 3 by using the new card shortcut, Ctrl N or Command N. Return to Card 2 by using the shortcut, Ctrl < or Command <. Select the Browse tool to click the Button on Card 2 that advances you to the next card in the stack.

To conclude the card “Ancient Times: Egyptian Hieroglyphics,” you will add a Text Object and a Graphic Object. The Graphic Object will activate a ready-made HyperStudio animation. Think of Buttons, Text Objects, and Graphic Objects as things that float over the background, rather than becoming part of the background. They can be moved and edited without affecting the background.

**Seeing Isn’t Always Believing...** After 23 years of study, the Rosetta stone finally relinquished the key to understanding hieroglyphics in a single word—Ptolemy. Ironically, even though Champollion is credited as having made the breakthrough discovery of the cartouche, he worked from only copies and models of the Rosetta stone. He used symbols found on obelisks, artifacts, and papyrus to understand the meaning of the symbols, but he never saw the actual Rosetta stone!
Add a Text Object

Unlike painted text, a text object can be edited, and can be moved around; it is not a permanent part of the background.

Add a Text Object.

1. From the **Objects** menu, select Add a Text Object.…

2. A box surrounded by dotted red lines will appear on your card. Move the text box to the top right side of your card with the four-headed arrow cursor and use the double-headed arrow cursor to resize the box.

3. Click once outside the box to set it in place and open the **Text Appearance** dialog box.
4. Check Draw scroll bar, Scrollable, and Draw frame. With the scroll feature, you can add a lot of text. Select Text and Background colors. We chose dark blue and white but you can choose anything.

5. Click Style to choose from a variety of fonts and sizes. An example of your choices will appear in the window. Choose at least 14 pt for the font size. Click OK twice.
6. Notice the I-beam cursor in the top left corner of the Text Object. If the I-beam cursor is not present, change to the Browse tool and click inside the Text Object. Enter the following text:

Champollion, an Egyptologist, was dedicated to unlocking the meaning of the hieroglyphs. He eventually triumphed in his quest.

7. With the Edit/Selector tool, you may click on the Text Object at any time. You can resize the box with the double-headed arrow cursor, or move the box with the four-headed arrow cursor.

8. You may edit text by selecting the Browse tool, and clicking it inside the text box. It becomes the I-beam cursor, and you can begin typing.

Your card should look like this:

![Image of a card with text and a graphic]

Add a Graphic Object

Graphic Objects can have the actions of Buttons and the appearance of clip art, but are easy to move around the screen. See the HyperStudio Reference Manual for more detailed information about Graphic Objects.
To add a Graphic Object:

1. Open the Media Window and select the Clip Art gallery.

2. Drag the Champollion file onto the card while the Alt key is depressed.

3. In the Drop Options dialog box, select Create a graphic object… and choose OK.

4. Using the Square Selector tool, capture the image of Champollion and choose Scale & Rotate.

Rotate an Image

1. Enter a rotation angle of 10, check counter-clockwise, and choose OK.

2. Double click the Lasso Selector tool to capture the rotated image of Champollion, and choose OK.

3. Using the four-headed arrow cursor, move the Graphic Object of Champollion to the position shown and click outside the image on the card to set it in place.

4. The Graphic Appearance dialog box appears. Select Actions.
Add Ready-Made Animation

Buttons can have actions, and so can Graphic Objects.

1. The **Actions** dialog box appears. From the Things to Do… list, select Play Animation. The dialog box below appears.

2. Notice that the Square Selector and the Lasso Selector tools appear next to the Current card. These tools are used to animate images from the card. For this animation, select Disk Library.

3. From the Please select a picture file, move up a level (click on the folder with an arrow going up) to the Media Library folder Tutorial Art.

4. Select the EgyptianScribe.gif file, and preview it, if desired. Click OK, and the figure of an Egyptian scribe will appear on your screen. Move it just to the right of the Rosetta stone so it appears that he’s carving the stone. This is a ready-made animation that will not change places on the card, so click the mouse once with the scribe in place and then press any key on the keyboard to end the path in exactly the same spot (the scribe will stay in place while chiseling). This technique is called Single Point Path Animation. The **Animation** dialog box automatically opens. (All the features of this dialog box are covered in Chapter 10 of the HyperStudio Reference Manual.)
5. Make the white frame around the scribe transparent by checking Transparent color and clicking on the window next to it. The cursor turns into the Eyedropper tool.

6. Click the Eyedropper on the white background in the Frame Preview box. Notice that the Transparent color box turns white. Now the frame surrounding the scribe will be transparent and let the background color of the card show through.

7. Under Frame Options: check Erase when done. Under Play for, select seconds, and enter 10 in the window. (See the Animations dialog box illustration.) Choose Try It to preview the animation and then choose OK.

Add Sound to a Graphic Object

1. The Actions dialog box returns when the Animations dialog box is closed. Now select Play a sound… to open the Digital Audio Deck dialog box.

2. Select a sound for the chiseling scribe from the Samples window and choose OK.

3. Finally, choose Done to close the Actions dialog box and OK to close the Graphic Appearance dialog box.

You’ve now added an animation and sound to Card 2. The animation will not appear until you activate it by clicking Champollion (a Graphic Object). Test your animation and sound by selecting the Browse tool from the Tools palette and clicking on Champollion. The scribe will appear and chip away at the stone.
Your card is now complete with its presentation of the discovery of the Rosetta stone, and the resulting unveiling of the mysteries and intrigue of ancient Egypt’s language.

Click **File** and select **Save Stack** to save the stack in the HyperStudio directory.

**Save Stack As...**

To save the first two cards of your Timeline stack to a different location or give it a different name, click **File** and select **Save Stack as...**.

The **Save As** dialog box appears. Change the directory to the new location or type in a new name.

Choose **Save**.

To recap, in Card 2 you
- Created a card border using a background from the Media Library
- Used the Paint Bucket Fill tool
- Added a title
- Added two scaled clip art images
- Imported a portion of an image
- Used the Rounded Rectangle tool
- Copy and resized an image
- Created navigation Buttons using background images
- Added icons to Buttons
- Created a Text Object
- Rotated an image
- Added ready-made animation
- Added sound to a Graphic Object

Take a well-deserved break, or zoom ahead into the Middle Ages with Card 3.
Section 3  Traversing with Text

Section 3 will take approximately one hour to complete. Explore these essential skills in this tutorial:

- Use the StoryBoard Feature
- Add a Background using the File Menu
- Use the Eyedropper Tool
- Add Painted Text
- Become an Experienced HyperStudio User
- Add a Text Object using a Text File
- Add More Colors
- Edit Text Objects
- Import Clip Art
- Use the Opacity Feature
- Add a Transparent Text Object
- Use the Spell Checker
- Convert Clip Art into a Graphic Object
- Use a Graphic Object to Play a Path Animation
- Add a Sound Effect
- Add an Interactive Cursor
- Add and Copy Navigation Buttons
- Bonus – Planning Stacks

The third card, “Medieval Ages: Illumination,” will look like this when you have completed this section:
With Cards 1 and 2, you used HyperStudio's special features to explore early writing forms. You have included information ranging from cave drawings to hieroglyphs for a multimedia presentation. Read on to find out about another stage in the evolution of written communication and how you can use HyperStudio to display writing as it evolved during the Middle Ages. You will get a close view of how monk scribes and artists of the Middle Ages illuminated and copied manuscripts.

**Most Beautiful Book in the World...** Illuminated manuscripts were the only form of books made in Europe until the 15th century. *The Book of Kells* is widely renowned as one of the most beautiful books in the world. It was written around 800 A.D. on vellum, and contains the four gospels in Latin text. Every page in this illuminated manuscript is decorated with impeccable and intricate designs. Historians believe that at least four different artist monks created the illuminations for this outstanding treasure.

If you are returning to the tutorial, open your stack from the Home Stack or click Open Stack from the **File** menu. Remember, your stack name is HistoryofWriting and is saved in the MyStacks folder.
Use The StoryBoard Feature

At the end of Card 2 you added Card 3. View your stack and go to this card using the StoryBoard feature. Choose the Extras menu and click on StoryBoard. You should see the three cards from your stack, depicted in miniature or “thumbnail.” Notice the options here. You can delete or move cards as desired. Select the third card by clicking on it. A red line will surround it. Choose Go to Card. Timeline - Card 3 should show at the top of your screen, and you are ready to begin.

Shortcut: You can also move through the stack using Ctrl/Command < or >.

Designs for the Manuscripts... The work in Irish monasteries was initially focused on copying religious books. It is speculated that copyists may have been bored with their work, so doodled and drew in the margins, using patterns common to the crafts and designs of their culture. These doodles eventually became stylized and celebrated as an art form, merging early Christian designs with Germanic and Celtic metalwork traditions.

What is so intriguing about The Book of Kells is the intricate interlacing effect. The complex artwork follows patterns of repetition, alternation, and reversal. You will see samples of the artistic scribes’ work in some of the images you will import for this section. You, too, will be able to add intriguing effects. Read on to find out more as you learn to illuminate your own HyperStudio artwork.
Add a Background using the File Menu

Here’s another way to add elements to your stack. Use the File menu command, Import Background… to add a border to your card.

1. From the **File** menu, select Import Background….

2. A dialog box opens asking where to get the graphic. Select Disk file and click OK. The **Please select a picture file** dialog box appears.

3. Open Backgrounds folder in the Media Library.

4. Check the Show Preview box, select MedievalBorder.jpg, and open the file by double-clicking it.

5. If a dialog box asking about resizing the picture to fit the card appears, choose Yes.
6. The border has been added to the card.

Let's add a title to the Card 3.

**Use the Eyedropper Tool**

This time, when you use the Paint Text tool (T) to add a title, try matching the color of the border.

1. Use the Eyedropper tool to pick a color from the blue background, which now becomes the selected color for all tools except the Paint Text tool (T). Selecting the color with the Eyedropper tool adds that color to the Colors palette, making it available for use with the Paint Text (T) tool.
Add Painted Text

2. Select the Paint Text tool (I), click Colors and select the background color from the palette.

3. Click **Format** and select Text Style… to open the Text Style dialog box.

4. Select a text font, style, and size

5. Add the title, “Middle Ages: Illumination.” Use the Lasso Selector tool to move the title to the upper right corner of the card.

Become an Experienced HyperStudio User

It’s now time to become acquainted with the advanced HyperStudio features you will use to make Card 3. HyperStudio simplifies some of its procedures while you are learning, but now you are familiar with many of the basic procedures and it’s time to step it up a notch!

1. From the **Edit** menu, select Preferences to open the **Preferences** dialog box.

2. Check the box I’m an experienced HyperStudio user, and click OK.
**Setting New Standards...** During the Middle Ages, the work of writing manuscripts was all-consuming. Manuscripts and sacred texts were considered status symbols. In the Middle Ages, the principle function of monasteries was copying text in order to spread Christianity. The traditional method of relying on word of mouth for information was changing. Manuscripts allowed people to receive more standardized information.

## Add a Text Object using a Text File

To import a text file into a Text Object:

1. From the **Objects** menu, select Add a Text Object or use Ctrl T or Command T to create a text object.

2. The rectangle of dotted red lines indicates where the text object will be. Move it to the upper right of your card, and resize it to fill the corner of the card. Overlap the border a little, if you like. Click outside the box to set the Text Object and open the **Text Appearance** dialog box.

3. Click Get File. The **Please select a text file** dialog box appears.

4. Open the Cartoons and Whimsy.txt file in the Text folder in the Media Library. It will appear in the preview window on the **Text Appearance** dialog box.

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During the Middle Ages, the work of writing manuscripts was all-consuming. Manuscripts and sacred texts were considered status symbols. In the Middle Ages, the principle function of monasteries was copying text in order to spread Christianity. The traditional method of relying on word of mouth for information was changing. Manuscripts allowed people to receive more standardized information.
Add More Colors

5. Select a text color and background color for the text box. See the preview window to ensure that the text color shows up clearly against the background.

Because you checked I'm an experienced HyperStudio user, you now have more colors available. Double-click on any color on the Colors palette in the Text Appearance dialog box (or any Colors palette set on the screen). The More Colors! dialog box opens, providing you with many more choices. Choose a color, then choose OK.

To find even more choices, double-click on the color closest to the one you want, and the Color Chooser dialog box opens. Use the dial-up windows, slider bar, or crosshairs cursor to change the color. The original color and new color are shown for comparison in the window on the upper left. When you are satisfied with your choice, click OK, until you return to the Text Appearance dialog box.
6. Click the Style… button and select the same font as used for the title. Click OK. In the Text Appearance dialog box, you can uncheck the Draw frame option, but it's important to leave the Scroll bar and Scrollable options checked so viewers can read the entire text.

7. Click OK when you are pleased with the Text Object's appearance.

8. Change your tool to the Browse tool (Shift Tab) to scroll through the text.
**Edit Text Objects**

It’s easy to make changes to the Text Object’s attributes. Use the Edit/Selector tool and move it over the Text Object. It turns into the four-headed arrow cursor. Double-click it to open the **Text Appearance** dialog box. You are now free to make changes.

To edit text within a Text Object, select the Browse tool from the **Tools** menu. Click the cursor inside the Text Object, making it the I-beam cursor. You can now use it to edit the text.

**Import Clip Art**

Drag-and-drop the image of *The Book of Kells* from the Media Library (BookKells.bmp file) while depressing the Alt/Option key and select Lasso the clip art. Remember, all you need to do is switch to the Edit/Selector tool, open the Media Window by clicking **Options**, and selecting Show Media Library, or use the shortcut, Ctrl D or Command D. Place the image in the upper left corner of your card beneath the title. Click outside the image to set the book in place.

HyperStudio has many special effects designed to transform ordinary clip art into an extraordinary design effect. Next, you will alter a piece of clip art to make a backdrop for a transparent Text Object. It’s a lot easier than it sounds!
Use the Opacity Feature

It is easy to create a Graphic Object that has the appearance of a dim screen on which to show other images or text. You will import the image of a book and adjust its opacity so that it may be used behind a transparent Text Object. The dimmed image will show through the Text Object but the text will be clearly visible.

To create an opacity-adjusted Graphic Object

1. Using the Media Window, find the Book.bmp file in the Clip Art folder and drag in onto the card while depressing the Alt key. Choose Create a graphic object….

2. Scale the image to 200%. Then double click the Lasso selector tool and choose OK.

3. Place the Graphic Object of the book beneath the Book of Kells and click outside it to open the **Graphic Appearance** dialog box.

   ![Graphic Appearance dialog box]

4. Adjust the Opacity slider to 30% and choose OK.

Save your stack (Ctrl/Command S). Card 3 should look like this:
Add a Transparent Text Object

Next you will make a transparent Text Object so that the book will appear in the background behind the text.

1. Click **Objects** and select Add a Text Object… or press Ctrl T or Command T. Move the dotted red lines so the text box is over the Graphic Object and resize it to fill the corner of the card.

2. Click away from the Text Object to open the **Text Appearance** dialog box. Select Draw scroll bar and Scrollable. Deselect Read only and Draw frame.

3. Choose the Features option (available only to experienced HyperStudio users) to open the **Object Features** dialog box.

4. Check Transparent and choose OK.

5. Now, choose a font, style, size, and color. The background will be transparent, so there is no need to choose a background color. Choose OK, then OK again.

6. Open the Media Window and select the Text folder.

7. Using the Edit/Selector tool, drag the Kells.txt file from the window to the Text Object.
A Medieval Treasure... Some pages in *The Book of Kells* are filled by a single letter elaborately decorated with remarkably intricate patterns, colors, and designs. Some pages were so beautifully made that the letters were thought to have magical powers. Today, *The Book of Kells* is on display in the Old Library of Trinity College in Dublin, Ireland.

Use the Spell Checker

To avoid spelling errors, use the Spell Checker from the **Extras** menu. The **Check Spelling** dialog box will open. Check This Card and choose Start. Spell Checker will scan the text in each Text Object, stop whenever it suspects a misspelled word, and offer suggestions. You will have the option to skip the word or replace it. If the dictionary doesn’t recognize a word that is correctly spelled, it will present it as a misspelled word; you can choose Add to add this word to the dictionary so it will recognize the word as being correctly spelled. The dialog box will close automatically when it has finished scanning all the Text Objects on the card.
Now is a good time to save your work.

Next, you will add a picture of an artist monk to the lower right corner of your card, turn it into a Graphic Object, and add an animation that will be activated when you click on the image of the monk.

HyperStudio presentations include special effects, like the ready-made animations added to Card 2. Your next animation will be of a flying book that has a path that begins by the scribe and ends at *The Book of Kells*.
Convert Clip Art into a Graphic Object

1. Using the Media Window, select the Clip Art directory and find the file called MedievalScribe.bmp. Using the Edit/Selector tool, drag-and-drop the image onto the card while depressing the Alt/Option key.
2. Select Crop the clip art… and choose OK.
3. Scale the image to 70% and select it by double-clicking the Lasso selector tool. Choose OK.
4. Using the four-headed arrow cursor, move the image to the lower right hand corner of the card.
5. Click outside the image to set it in place.
6. Recapture the image using the Lasso Selector tool. Then choose Add a Graphic Object… from the Objects menu.

A dialog box opens asking if you want the selection to be a Graphic Object. Choose Yes.

7. From the Graphic Appearance dialog box select Actions, and then select Play Animation from Things to Do.

Use a Graphic Object to Play a Path Animation

1. Select Disk Library from the dialog box that opens. From the Please select a picture file dialog box, look in the Media Library folder, open the Animations folder, and select the BookFly.gif. GIF files include several frames that create animation.
2. The book image will appear on your screen (do not click the mouse button yet). Move the book so it sits on the book on the monk’s stand. Now click the mouse button and drag the image to The Book of Kells. Press any key on the keyboard to end the animation path. You have now created a path for the animated book to “fly” along. The Animation dialog box opens.
3. Click Try it to look at your animation. Keep it if you like, or experiment with the options. You can edit the path, change the speed of the pages flapping, have the image stay on the card after the animation, or match the animation speed to the path speed. Play with the animation until you are satisfied. The settings we chose are shown below. Click OK to return to the Actions dialog box. For more information on animation, see Chapter 10 of the HyperStudio Reference Manual.

![Animation Settings](image)

**Add a Sound Effect**

To add a sound effect to the animation:

1. Click Play a sound… to open the Digital Audio Deck dialog box. Choose Disk Library and select Medieval.wav from the Sounds file in the Media Library. Choose Open, then OK.

2. Click Done in the Actions dialog box.

**Add an Interactive Cursor**

Finally, let’s add a cursor that only appears when the Browse tool is passed over the monk. We’ll choose the Grabhand cursor so we can grab the book to make it fly!

1. In the Graphic Appearance dialog box, choose Features… and select Cursor… to open the Cursors dialog box.
2. Select the Grabhand cursor and choose OK.

3. Then choose OK in the Object Features and Graphic Appearance dialog boxes to return to the card.

Choose the Browse tool and pass it over the monk. Notice that it turns into the Grabhand cursor.

Click the mouse to watch the animation and listen to the sound. Save your stack. Select File and choose Save Stack (Ctrl/Command S).

Now it’s time to create navigation Buttons that allow the users to move easily to the previous or next card. First, create Card 4 by pressing Ctrl N or Command N. Click Move and select Back to return to Card 3.

Add and Copy Navigation Buttons

You are going to create the Back Button with an associated sound and transition. Then you will copy this Button, place it on the opposite side of the card, and edit it to say Next.

1. Use the shortcut, Ctrl B or Command B, to open the Button Appearance dialog box. Select the shadowed rectangle (number 4).
2. Select the Text Style by clicking **Format**. Choose a font style that is consistent with that of the rest of your card.

3. Then select a dark background color and a light name color.

4. Now type “Back” in the Name field and choose OK.

5. Your Button will appear on the card, outlined with dotted red lines. Move the Button to the bottom left corner of the card and click outside it to open the Actions dialog box.

6. In the Places to go… section, choose Previous card.

7. Select Cross Fade and Slow in the **Transitions** dialog box (or any combination), and click OK to return to the **Actions** dialog box.

8. In the Things to do… section, choose Play a sound….

9. Using the **Digital Audio Deck** dialog box, select Chimes.wav from the Sounds folder in the Media Library, and choose Open, OK, then click Done in the **Actions** dialog box, and return to the card by clicking OK.

Your card will look like this:
Now we are going to create the Next Button by copying the Back Button and making minor changes.

1. Select the Back Button using the four-headed arrow cursor by clicking once on it to highlight it.

2. Click **Edit** and select Copy Button (or Ctrl C or Command C).

3. Next, click **Edit** and select Paste Button (or Ctrl V or Command V). The copy of the Back Button is sitting right on top of the original. Drag it off, using the four-headed arrow cursor.

4. Move the Button copy to the bottom right corner of the card and double-click it to open the **Button Appearance** dialog box.

5. Change Back to Next in the Names field. Choose Actions....

6. Change Previous card to Next card and click Done. Then click OK to return to the card.

You now have two Buttons with identical sounds and transitions, allowing you to move easily from one card to another. You can copy Buttons (or Text or Graphic Objects) and paste them elsewhere with their associated features and actions intact, even to other cards in the stack or other stacks.

Be sure to save your four-card stack. You may now exit HyperStudio by clicking **File** and selecting Exit, or continue the tutorial by going to Card 4.

**Bonus – Planning Stacks**

Many HyperStudio users find it particularly helpful to develop the habit of making storyboards before beginning to construct cards and stacks (see the Planning and Assessment chapter in the HyperStudio Teacher’s Guide.) A storyboard is a sketch of the step-by-step process for building your card or stack. For example, a storyboard of Card 3 might look like this:
To recap, on Card 3 you:

- Used the StoryBoard feature
- Added a background using the File menu
- Used the Eyedropper tool
- Became an experienced HyperStudio user
- Added a Text Object using a Text file
- Learned how to use more colors
- Learned how to edit Text Objects
- Used the Opacity feature
- Added a transparent Text Object
- Used the Spell Checker
- Converted clip art into a Graphic Object
- Used a Graphic Object to play a path animation
- Added a sound effect to the animation
- Added an interactive cursor
- Added and copied navigation Buttons
Section 4  Grasping Graphics

Section 4 will take approximately one hour to complete. Explore these essential skills:

▶ Add a Background
▶ Use the Oval Tool
▶ Add a Frame to a Graphic Object
▶ Add a Sample Sound
▶ Add a Path Animation
▶ Set a Background Sound
▶ Add a Graphic Object
▶ Create a Hidden Graphic Object
▶ Create a Hypertext Link
▶ Import Text File
▶ Add a New Button Action
▶ Use the Cookie-cutter Effect
▶ Delete Cards
▶ Add a Graphic Object
▶ Add a Movie
▶ Add a Sound
▶ Copy and Paste Buttons

Your fourth card, “Renaissance: First Printing Press,” may look something like this when you complete this section:
Add a Background

Use the Media Window or the File command method to import the FirstPress.jpg file from the Background folder in the Media Library.

A New Era Unfolds... The Chinese were the first to invent block printing. The Diamond Sutra, a Buddhist prayer book, is the earliest dated block-printed book made in China, and dates to A.D. 868. Because carving an entire text on a wood printing plate was arduous, the Chinese carved individual characters that could be used again and again.

In Europe, the “photocopy machines” of the Renaissance, like those of the Middle Ages, were still scribes who painstakingly copied manuscripts and documents. It became popular for people to copy or have copied favorite passages; these pages would be bundled with ribbons and cords. Scriptoria and writing shops were overwhelmed by orders. The copying process was tedious and time consuming. It was not uncommon for book orders to take years to fill.
The Demand Grows... In an earlier age, wealth was determined by the amount of land owned by a family. Art and books eventually joined the official ranks of what constituted wealth, and people clamored to fill their homes with these valuable objects of culture. Because of such high demands for both Biblical passages and secular material, scribes were unable to keep up with the workload. However, people in other countries, most notably in The Netherlands, Italy and France, were working toward a faster way of copying text. Experts in the history of printing have debated the question of exactly who invented the first movable type printing press.

Now you are going to create artwork and convert it into a Graphic Object. Then you will add the actions: a sound and a path animation of a portion of the background clip art. Let’s begin!

Use the Oval Tool

1. From the Tools palette, select the Oval Tool.
2. From the **Options** menu, select **Draw Filled** (or double-click the tool on the torn off palette to toggle between filled and unfilled).

3. From the **Colors palette**, select the blue gravel pattern.

4. Place the crosshairs cursor in the middle of the card and draw a small filled oval. This represents an ink puddle.

5. Select the **Paint Text tool (T)** then click **Format** and select **Text Style**....

6. Choose any font, size, color and style for your text that will fit inside the oval and type “INK” anywhere on the background of the card. For the sample, we chose Engravers MT, 10 pt, Bold, in black.

7. From the **Tools palette**, select the Lasso Selector tool and encircle the word INK. Now move it to the center of the oval you created and set it in place.

8. Using the Lasso Selector tool again, encircle the image you’ve created, and from the **Objects** menu, choose Add a Graphic Object... to turn your art into a Graphic Object so you can add actions to it.
The **Graphic Appearance** dialog box opens.

### Add a Frame to a Graphic Object

1. Select a color from the Frame Colors palette (we chose tan).

2. Using the dial up arrow, set a frame width of 2. Notice that the frame does not apply itself to the outside of the image’s edges, but to it’s inside, thereby reducing the image by the frame width.

3. Choose OK and move the image to the lower left corner of the card, using the four-headed arrow cursor.
Add a Sample Sound

1. Place the cursor over the image and double-click to reopen the Graphic Appearance dialog box. Click the Actions button to open the Actions dialog box. Select Play a sound… in the Things to Do column.

2. From the Digital Audio Deck dialog box, select Magicwand1.wav from the Disc Library, and choose OK to return to the Actions dialog box.

Before you try out the sound, let’s add some animation.

**Working in Secret**... Laurens Coster of Haarlem, The Netherlands, was the first European to use movable type in 1423, and he used it to print pamphlets and fliers. Pampilo Castaldi, an Italian, was also instrumental in designing a movable type press. Records also show that Procopius Waldfoghel, a Czechoslovakian who was living in France, was developing a secret method of “writing artificially.” People worked in secret because no patent laws existed to keep others from stealing ideas. Some people thought that printing books was somehow wrong or immoral—that mass-producing text somehow diminished its spiritual significance.
Johannes Gutenberg, First to Print a Book... Even though many people were working on ideas about how to print copies of books faster, historians seem to agree that Johannes Gutenberg, a German from Mainz, was the first to print a book using movable type.

Add a Path Animation

1. Select Play animation... from the Things to Do column in the Actions dialog box.

2. A dialog box will open, asking where you would like to get your image. Choose the Square Selector tool and click Current Card. A crosshairs cursor will appear on your card.

3. Use the cursor to capture the letter “h” in the upper left corner of the card’s background.

4. Release the mouse button and the image will now float freely on the card. Without depressing the mouse button, move the image to the bottom of the card and center it in the ink puddle.

5. Now press the mouse button and slowly drag the image up to the top left corner and superimpose it on the “h” that remained on the background. Next, depress any key on the keyboard to end the animation path. The Animation dialog box will open.
6. Check Erase when done, and then check Allow clones.

7. From the Path drop-down menu, select Path Options… to open the **Path Options** dialog box.

![Path Options dialog box](image)

We will be adding other Graphic Objects to this card, and we want the “h” to float over the top of them on the card. The **Path Options** dialog box lets you make many changes in the animation path. You can reverse the direction, loop the path, or have the image float over or under Objects. Don’t be afraid to experiment, and remember to use the Try It button in the **Animation** dialog box to check the results before returning to your card!
8. Check Float over, select Top from the Layer drop-down menu, and choose OK.

9. Choose Try It and then close all dialog boxes by choosing OK and Done to return to Card 4.

10. Select the Browse tool and test your animation by clicking on the Ink puddle several times in a row. Notice that each time you click it, the letter flies up from the puddle, even if another letter is still flying. This is the effect of the Allow clones option in the Animation dialog box. Notice that the sound gets interrupted when each new sound is activated.

Next, you're going to change a setting so that the sound will play continuously each time the Graphic Object.

**Set a Background Sound**

Background sounds are sounds that will continue to play when another sound is activated.

1. Using the Edit/Selector tool, return to the Digital Audio Deck dialog box by double-clicking the Graphic Object with the four-headed arrow cursor. Click Actions… in the Graphic Appearance dialog box, and double-click Play a sound… in the Actions dialog box. Double-clicking the already checked box reopens the Digital Audio Deck dialog box.

2. Check the Background Sound option in the Digital Audio Deck dialog box. Close the dialog boxes by choosing OK, and click Done to return to Card 4.

Your card will look like this when you click your Graphic Object (the ink puddle) and the sound should play without interruption when you clone the animation by clicking it again. (Remember to switch to the Browse tool first.)
You are now going to create a Graphic Object from Egyptian art, hide it, and make it show up when you click on words in a Text Object. Let’s get started.

1. Open the Media Window, go to the Backgrounds folder, and drag the EgyptianArt.jpg file onto the card while depressing the Alt/Option key.

2. In the Drop Options dialog box, select Create a graphic object…

3. Using the Square Selector tool, select several hieroglyphs and choose OK.

**Modifying a Grape Press to a Printing Press…** In the 1440s, Gutenberg modified a grape press and assembled pieces of carved type into a form placed on the bed of the press. He designed and installed a rollout paper tray that allowed him to slide paper easily in and out of the press. Then, by tightening a huge wooden screw against a wood block, the paper underneath was imprinted by the inked letters below.
Create a Hidden Graphic Object

1. Click outside the hieroglyphic Graphic Object. The Graphic Appearance dialog box opens.

2. Give the Graphic Object a name by typing “Hieroglyphs” in the Name window.

3. Select Features… to open the Features dialog box. Check Hidden and choose OK.


5. Using the four-headed arrow cursor, position the Rosetta stone Graphic Object in the upper left of the card.
You have created a Graphic Object that will be hidden when the Browse tool is selected. Try it! Now you must create a way to make the Graphic Object appear. You will make the Rosetta stone appear by making a Text Object that contains a Hypertext phrase. Hypertext is a word or phrase that, when clicked with the Browse tool, causes an action to occur (much like a Button). In this case, the action will be to make the Hieroglyphics appear.

**Create a Hypertext Link**

First you will create a Text Object and add a short paragraph that will include the phrase you will use as Hypertext.

1. Switch to the Edit/Selector tool. From the **Objects** menu, select Create a Text Object…. Resize the text box, move it to the upper right corner of the card, and click outside it to open the **Text Appearance** dialog box.

2. Make the following selections:
   - Uncheck Draw scroll bar and Scrollable
   - Uncheck Read only
   - Check Draw frame
   - Any font style
   - Any font size
   - Center align

3. Choose OK
Import Text File

To add text to the Text Object

1. Be sure the I-beam cursor appears in the Text Object.

2. Click File, select Import Text and choose the Gutenberg.rtf file from the Text folder in the Media Library.

The top of your card should look like this:

A hypertext word or phrase is often changed so it will stand out to the reader. You’re going to change regular type in the hypertext phrase by changing the color and making it bold.

3. Select the Browse tool and click inside the Text Object to turn it into an I-beam cursor. Using the I-beam cursor, highlight the phrase “ancient times.”

4. From the Format menu, select Text styles…. Pick a new text color and check Bold and Underline. Choose OK to close the dialog box. Click the Edit tool in the Tools palette to see the changes in the Text Object.
5. Using the I-beam cursor, highlight the phrase “ancient times” again.

6. From the Objects menu, select Hypertext Links… to open the Hypertext dialog box.

7. Check This Field Only (to limit the hypertext to only this appearance of “ancient times” in the stack), select Add Link and then select Actions….

   **Add a New Button Action**

8. Select New Button Actions… from the Actions dialog box to open the New Button Actions dialog box.

9. From the Names window, select HideShow2NBA. Notice that the scrollable Info window describes how the New Button Action works.

10. Click Use this NBA to open a dialog box for making selections.
11. Type “Hieroglyphs” in the name window (the name you gave to the Graphic Object you just created).

12. Check Graphic, and then Toggle.

13. Click Hide Effect… to open the Transitions dialog box.

14. Select any transition (we chose Dissolve); then select Fast. Choose OK.

15. Click Show Effect… and make the same choices.

16. Choose OK to return to the New Button Action dialog box, and choose OK.

17. Choose Done in the Actions dialog box and choose Done again to return to the card.

You have now finished creating a Graphic Object that will appear when you click on the hypertext, “ancient times.” Select the Browse tool and click on the phrase. The Graphic Object will appear. Click the phrase again, and it will disappear. Notice the transition effect as it appears and disappears. HyperStudio lets you create lots of surprises like this one using New Button Actions. We will explore a few more in this tutorial, but don’t hesitate to try others as you create stacks.

It’s good idea to save your stack now. Click File and select Save Stack or press Ctrl/Command S.
You’ve created a path animation activated by a Graphic Object and a hypertext link that shows a hidden Graphic Object. Now you are going to learn about a technique that can be used with clip art or painted text to create an interesting visual effect. The effect is called Cookie-cutter, which cuts shapes out of any background, using a “cutter” that you create.

Often, when you create special effects for a card, it’s a good idea first to add a “scratch” card or two to work on, then delete the scratch cards after you have created and transferred your effect. To do so, press Ctrl N or Command N. You will next create the title, “Renaissance: First Printing Press” by cutting the letters out of a background that looks like wood bark.

### Use the Cookie-cutter Effect

1. Create two scratch cards with white backgrounds.

2. On the first scratch card, add the title: Renaissance: First Printing Press. Use the Painted Text tool and any bold, plump font.

3. Move to the second scratch card and click **Edit** and select Erase background….

4. Select a medium brown color and choose OK.

5. Click **Edit**, select Effects, and choose Texturize…. The **Texturizer** dialog box opens.

6. Select Treebark from the pull down menu in the top right corner. Then adjust the Relief and Scale sliders and experiment with selecting Invert or changing the orientation of the texture by using the pull down menu in the bottom right. When you are satisfied with the results, choose OK. Your entire scratch card will look like the preview window.
7. Return to the first scratch card and capture the title using the Lasso selector tool.

8. While the title is still captured, click **Edit** and select Copy. Move to the second scratch card, click **Edit** and choose Paste (or use the shortcuts, Ctrl/Command C and Ctrl/Command V).

9. Again, while the title is still captured, click **Edit** and select Effects and choose Cookie-cutter.

10. Click **Edit** and select Cut (or press Ctrl/Command X).

11. Move to Card 4 and click **Edit** and select Paste (Ctrl/Command V).

12. Position the title as shown below.
13. Save your stack.

**Delete Cards**

It's now time to delete the scratch cards from your stack. Got to the first scratch card, click Edit and select Delete Card. A dialog box will open asking for confirmation. Choose Yes. Repeat this procedure for the second scratch card.

Another way to delete cards is to view the cards in StoryBoard format, an option in the **Extras** menu. Select the card you wish to delete, and press the Delete key.
Add a Graphic Object

Let’s add a picture of Gutenberg to Card 4 as a Graphic Object. Click **File** and select **Add a Graphic Object…** or use the Media Window to select the Gutenberg.BMP file. In the **Graphic Objects** dialog box, scale the image to 75%, use the Lasso tool to capture it, and choose OK. Your card should look like this.

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**Cast Metal Movable Type and the Printing Press**

Hand carving an entire printing plate took almost as long as hand printing the copies, and wood blocks deteriorated during the use. To address these concerns, Johannes Gutenberg began experimenting with techniques of metalworking, such as casting, punch-cutting, and stamping. Eventually he made letter molds and filled them with a molten alloy of lead, tin, and antimony. Using the cast letters, typesetters could more easily align the standardized forms in a frame. After letters (type) were set into frames, they were inked. Printers laid sheets of paper on top of the inked letters, placed a heavy leather holder between the press and paper. Then pressmen pushed on the screw-like device that squeezed the printing beds together. Casting and sizing letters, inking them, and pressing them with a modified ink press is the criteria historians use to acknowledge that Gutenberg was the first to successfully use a movable type printing press.
Gutenberg spent a great deal of time working by his forge. Let’s add a movie and sound to show what it was like. You’ll use the Graphic Object of Gutenberg to activate these effects. Using the Edit tool, double click on the Graphic Object to open the Graphic Appearance dialog box. Choose Actions….

**Add a Movie**

1. From the **Actions** dialog box, select Play a movie or video… to open the **Video/Movie Source** dialog box.

![Video/Movie Source dialog box]

2. Select Disk file and choose OK.

3. From the Movies folder in the Media Library, double-click on the Campfire.MOV file. The movie appears on the card, surrounded by dotted red lines.

4. Using the four-headed arrow cursor, place the movie to the left of Gutenberg. Click outside the movie to open the **Movies** dialog box.

![Movies dialog box]
5. Check Show first frame. To remove the image from the card after the movie has completed playing, check Erase when done.

6. Choose OK, then Done to return to the card. Select the Browse tool and click on Gutenberg to test the movie.

7. Using the Paint Text tool and any font and color of your choice, add the instructions: Click Herr Gutenberg to see his forge. (A smaller, finer font size works best for giving instructions on a card.)

When you click on Gutenberg, your card will look something like this:

![Card Image]

**Add a Sound**

Using the Edit tool, double click Gutenberg to open the Graphic Appearance dialog box. Choose Actions... to open the Actions dialog box. Select Play a sound... and choose the Sizzle.wav file from the Disk Library in the Digital Audio Deck dialog box. Choose OK and Done to return to the card.

Save your stack.
The Famous Gutenberg Bible… The first major printing project Gutenberg completed was the production of over 300 copies of a 42-line Bible. Experts believe that Gutenberg printed the Bible in ten sections. He probably had enough type to set up about 130 pages at one time. The Bible had 641 sheets, and most of its pages contained 42 lines in two columns. In total, there were 1,282 pages bound together in a two-volume set. This printing project was an enormous undertaking: Gutenberg used over 400,000 pieces of type to accomplish this feat.

Your card is now complete, and it will look something like this:
Save your stack and take a break, or continue with Card 5.

To recap, in Card 4 you
- Used the Oval Tool to create a Graphic Object
- Added a frame to a Graphic Object
- Added a Path Animation and sound
- Set a background sound
- Created a hidden Graphic Object
- Added a Hypertext link from a Text Object to show the hidden Graphic Object
- Imported a Text file
- Used the Hide/Show2 New Button Action
- Used the Cookie-cutter effect to create a title
- Deleted cards
- Added a movie to the card
- Copied and pasted navigation Buttons

Movable Type Printing Press and E-Text in the Modern World... The power of printed text during the Renaissance is comparable to the impact of today’s electronic text. The movable type printing press wielded enormous influence over every aspect of culture and civilization. The invention of movable type was especially revolutionary for people of privilege and education. While most of Europe remained illiterate, the fortunate could exchange ideas rapidly and accurately through books. Our modern world sometimes appears much the same: great advantage is had by the educated and computer-literate.
Section 5  Managing Multimedia

Explore these essential skills in this tutorial:

- Add a Background
- Use Starfield NBA
- Add Clip Art
- Create a Button from Clip Art
- Add Sound from a CD
- Add a Button
- Go to URL Action
- Record Sound
- Manage Sound Files
- Use the Beveler Effect
- Import an Image from a Scanner
- Use the Box Maker Feature
- Use the Texturize Effect
- Add a Text Object
- Use HyperLogo
- Test the Stack
- Set Presentation Mode

The next card you will create, Card 5, is called “Modern Times: HyperStudio & Technology,” will look like this:
You will now “hyper leap” from Gutenberg’s press to the twenty-first century’s press—the computer! You will add a background to Card 5 and add a special effect that appears when you arrive at Card 5. The special effect is Starfield, a new Button action that makes the transition from Card 4 to Card 5 appear as if stars are rushing past.

Add a Background

From the Background folder in the Media Window, drag-and-drop the file called FutureRoom.bmp onto Card 5 while depressing the Alt/Option key. Choose Import background… in the Drop Options dialog box.

Use Starfield NBA

1. From the Objects menu, select About this Card… to open the About Card - 5 dialog box.
2. Under Things to do when, check arriving at this card... to open an abbreviated **Actions** dialog box.

3. Select New Button Actions... to open the **New Button Actions** dialog box.
4. Choose StarField NBA.

![StarField NBA dialog box]

5. Read the information about this NBA in the Info window and choose Use this NBA. A dialog box opens. Select Show stars until click or mouse press.

6. Choose OK in the **New Button Actions** dialog box.

7. Select Done in the **Actions** dialog box and OK in the About this Card dialog box to return to Card 5.

8. Press Ctrl < or Command < to return to Card 4; select the Browse tool, and click the Button to move to Card 5 and test the transition you just created.

9. Revert to Edit mode by using the shortcut, Shift-Tab.

**Add Clip Art**

From the FutureRoomEquipment.bmp file in the Clip Art folder, use the Lasso Selector tool to add computer equipment and accessories to the background as seen on the illustration of Card 5 below. Choose anything you like, but be sure to include the radio because we’ll use it later.
After you’re finished equipping and decorating, let’s Button on the radio, and have it play your favorite music from a CD.

Create a Button from Clip Art

1. From the Objects menu, select Add a Button… to open the Button Appearance dialog box.

2. From the Type palette, select the Expanding Area Button (number 7).

3. Click Position, and when the four-headed arrow cursor appears, move it to the radio frame and click once.
4. When the dialog box opens to confirm that the Button’s shape has been defined, choose OK.

![Image: Your button's shape has been defined.]

5. When the **Button Appearance** dialog box reappears, choose OK and the **Actions** dialog box will open.

**Add Sound from a CD**

1. From the Things to Do column, select New Button Actions… to open the **New Button Action** dialog box.

2. Place a favorite music CD in the CD-ROM drive. Make sure the CD Player is turned off (not just minimized).

3. From the Names window, select CD Play and click Use this NBA.
4. The **CD Player Setup** dialog box will open.

Next, you will set the Button to play a one-minute sequence from track 03 of your CD.

5. The dialog box contains several buttons to make settings and windows that show the CD play time. Notice that when you arrive at this box with a CD in the CD-ROM drive, Track will read 01, and Time will read between 2:00 and 3:00 seconds (the audio on the CD doesn’t actually begin at 0:00).

6. Set Track to 03 (notice that the Set Start time changes). Click Set Start.

7. Click Set End and adjust the time upwards by approximately one minute (for this example, it’s not necessary to be precise).
8. Choose Options. Notice that the **CD Player Options** dialog box opens and lets you quickly set a track or enter the times to start and end a selection. Using Options, you can also create another Button for Pause, Stop, etc.

![CD Player Options dialog box]

8. Choose Options. Notice that the **CD Player Options** dialog box opens and lets you quickly set a track or enter the times to start and end a selection. Using Options, you can also create another Button for Pause, Stop, etc.

9. When you have completed your settings, choose OK.

10. Then close the rest of the dialog boxes by clicking OK, and then Done.

11. Select the Browse tool and click on the radio to play the music. Notice that the Expanding Area Button Type selects the object you click on. In this case, it selected the radio frame, but not speaker.

![Radio frame and speaker]

Click on the radio’s frame, not the speaker, to play the music. When you are in Edit mode, the outlines of the Button show up on the image to let you know where to click.

**From ENIAC to Notebooks...** The first computer, ENIAC (Electronic Numerical Integrator and Computer), was called an electronic calculator; it occupied a room measuring 30 x 50 feet and weighed almost 30 tons. The 18,000 vacuum tubes in its mechanism would often overheat and shut down the computer. Today’s Palm Pilot now does more calculations, faster, and more reliably than rooms full of the old apparatus.
Now, you’ll create a Button that will connect you directly to the Smithsonian Institute Internet site where you can search for more information about ENIAC.

**Add a Button**

1. Create a simple Button using the Rounded Rectangle Type (Number 1). Choose a background color to match the desk and a contrasting name color. Name the Button “ENIAC.”

2. Click OK. Resize the Button and move it to fit over the second desk drawer.

3. Click outside the Button to set it in place and open the Actions dialog box.

**Go to URL Action**

4. Under Things to Do, select Go to URL….

5. The Go to URL dialog box will open asking you to enter the URL of the site to which you want to go when the Button is clicked.
6. Type in the site, “http://americanhistory.si.edu” and choose OK. Then choose OK, and Done to return to Card 5.

7. Select the Browse tool and click on the ENIAC Button. An Internet window will open immediately and connect you to the Smithsonian National Museum of American History where you can learn about the history of computers and find out more about ENIAC from an original war document press release (Choose Search Our Site).

Save your stack now.

Next, you’re going to record your own sound passage, using a microphone and the Digital Audio Deck dialog box.

**Record Sound**

1. Create a visible Button (use any type 1-4), add the tape cassette icon, and place it as shown (note the outline of the invisible Button in this illustration). Click outside the Button to set it in place, and open the Actions dialog box.
2. Select Play a sound… to open the **Digital Audio Deck** dialog box.

3. Using the microphone connected to your computer, click Record and speak the following phrase into it, “One small step for man, one giant step for mankind.” Click Stop when you have completed speaking. Watch the green level indicator as you record to verify that it is moving. If it moves only slightly, you are speaking too softly, if it spikes to the top of the range, you are speaking too loudly.

4. Click Play, and listen to the recording. If you are not satisfied, just record again by repeating the steps above.

**Tip:** In Macintosh, press the Option key while recording for better sound quality.

**Manage Sound Files**

5. When you are satisfied with the results, save the recording as a separate file on disk by selecting Sound stored in: a separate file from the pulldown window.
The advantage to storing sound files in this manner is that they are not stored in the stack and thus, the stack is smaller. Digitized sound in HyperStudio takes up to 5K for 30 seconds. When stored in a separate file, the amount of memory (RAM) needed to open and run your stack is reduced until you access the sound. It’s a good idea to store disk-based sounds with your stack. You can give your recording any name. Here, we used Sound01.

6. Click Save and Done to return to Card 5. Select the Browse tool, and test the Button.

Next, you’ll decorate the computer room’s bare wall by creating a frame effect and importing an image from a scanner (if you don’t have a scanner, you can choose clip art from the Media Library).

**Use the Beveler Effect**

Select any color or pattern from the **Colors** palette (we chose a gold pattern) and the thickest setting in the **Line Size** dialog box. Using the Rectangle tool, draw a rectangle on the back wall of the computer room above the shelf. Next you’ll add an effect to make the box look like a picture frame.

1. Using the Square Selector tool, capture the rectangle you just drew.
2. From the **Edit** menu, select Effects, then HyperStudio Effects, then Beveler… to open the **Beveler** dialog box.

3. Experiment with the settings until you find the effect you prefer. We selected Flat and Inverse with a width of 12. Choose OK.

Now you’ll put a picture in the frame.

**Import an Image from a Scanner**

4. Select a picture or photo to scan, and place it in the scanner following the manufacturer’s instructions. Set the scanner at a resolution of 72 dpi.

5. From the **File** menu, select Add Clip Art…, and when the dialog box opens, select TWAIN scanner or video and choose OK.
6. The scanner will activate automatically, and the image will appear within the **Clip Art** dialog box so that you can manipulate it as you would any clip art image. If you don’t have a scanner, choose any clip art image or photograph from the Media Library now.

7. Select the image and choose OK. Resize and position it within the frame. Your final product should look something like this:

![Image of a digital clock within a frame]

Save your stack now.

You’re going to add three more items to Card 5: a functioning clock, an image of computer users who work and play in the room, and a title. You will use HyperLogo, a scripting language easy enough for a beginner to use, to create the digital clock on which the time will be displayed. Then you will create a Button to click to show the time and add the HyperLogo commands to accomplish this.

**Use the Box Maker Feature**

You’re going to create a digital clock, so let’s add a scratch card to the stack by pressing Ctrl N or Command N.

1. From the **Colors** palette, select any bright color.

2. From the **Line Size** dialog box, select medium.

3. From the **Extras** menu, select Box Maker. A crosshairs cursor appears on the card. Click the mouse and drag a small rectangle on the card.
Release the mouse and a three-dimensional box will appear on the card. Without clicking the mouse, drag the four-headed arrow cursor around until you achieve an effect like this:

4. Click the mouse to set the figure in place.

5. Remove the extra lines by selecting the Eraser tool, then white. Remember, if you make a mistake, click **Edit** and select Undo. You can also use the Magnifying Glass to enlarge areas. Now your box looks like this:

6. Select the Paint Bucket Fill tool to fill in two areas of the box.

Next, you’ll add texture to the outside of the clock.
Use the Texturize Effect

1. Capture the box using the Lasso Selector tool.

2. From the Edit menu, select Effects, HyperStudio Effects, and Texturize… to open the Texturizer dialog box.

3. From the drop-down menu, select Sand. Experiment with the two slider bars to see how the effect changes. For the example, we set the Relief slider bar in the center and the Scale slider bar halfway between the left and center. Try checking Invert and changing the direction of orientation. The example leaves Invert unchecked and the direction is NW. Choose OK.

4. Change the background color on the work card to black (or any other color other than white and the box color) using the Paint Bucket Fill tool. (This is so you can select and transfer the white area of the box as well as the rest to Card 5. If you don’t do this, the white area on the clock will transfer as transparent.)

5. Capture the box using the Lasso Selector tool and copy it using Ctrl C or Command C. Return to Card 5, press Ctrl V or Command V and move the box onto the desk. Delete your scratch card. Your card should look something like this:
Add a Text Object

1. Press Ctrl T or Command T to create a Text Object. Resize and move it to fit over the face of the clock, and click outside of it to open the **Text Appearance** dialog box.

2. Uncheck Draw scroll bar, Scrollable, and Draw frame. Name the Text Object Time.
Use HyperLogo

3. Click Actions… and select Use HyperLogo… in the Things to Do list.

4. The HyperLogo and Click Programming dialog boxes open together.
5. In the **Click Programming** dialog box, select Callbacks and choose SETFIELDTEXT from the scrollable window that appears at the right. When you choose it, it automatically appears in the window above, along with several parameters that must be completed.

6. Press the Ctrl or Command key and click the I-beam cursor on the highlighted word “card.” A pop-up window with two options will open. Choose the [ ] option.

7. The phrase “textitem” now becomes highlighted. Press Ctrl or Command while clicking the I-beam cursor on the word and the pop-up window appears again. This time, choose <use keyboard>. Click the I-beam
cursor on the word “item” and it will disappear. Type “Time (a double quotation plus the word Time), then press Ctrl or Command, click the I-beam cursor on Value, select <use keyboard>, and enter LAST TIME. Choose Enter and the entire phrase appears in the HyperLogo Script dialog box above. It should look exactly like this:

8. Now set a parameter that will show the time for five seconds. In the Click Programming dialog box, select Flow of Control and select WAIT from the drop-down list to the right.

9. Press Ctrl or Command and the cursor on the word “expression” and select <use keyboard> from the drop-down menu that appears. Enter 900 (HyperLogo for 15 seconds).

10. Choose Enter, and the second line of HyperLogo will appear in the HyperLogo Script dialog box. It should look like this:

11. To make the time disappear, return to the Click Programming dialog box and select SETFIELDTEXT again. This time, enter [ ] as above and “Time as above, but for “value” use the keyboard and type “ (one double quotation mark). Choose Enter, and all three lines of HyperLogo will appear in the HyperLogo Script dialog box.
10. Click on the X in the upper right corner to close the dialog box. Answer Yes to saving changes, and return to the Actions dialog box.

11. Select Automatic timer… in the Things to Do list.

12. In the Automatic Timer dialog box, mark Activate button after card is shown and set the time in the window to 3.0 seconds. Choose OK. Then Choose Done and OK to return to the card.
To text the clock, move to Card 4 and then back to Card 5. The time will appear on the clock face three seconds after arriving at the card and then it will disappear 15 seconds later.

Finally, finish Card 5 by adding the Computerpeople.bmp from the Clip Art Folder in the Media Library. Then add the title, “Modern Times: HyperStudio &Technology,” to the bottom of the card. We used 14 pt Architect Bold in dark blue.

**Test the Stack**

It’s time to test the stack to make sure that all of the features and actions work correctly. Return to Card 1 by clicking **Move** and selecting First Card or use the shortcut, Ctrl/Command 1. Select the Browse tool and work your way through the stack, testing the Buttons, Hypertext links, and Text and Graphic Object actions as you go. If an object needs to be adjusted, double-click it with the Edit/Selector tool to reopen the **Appearance** dialog boxes, and make your changes.

**Set Presentation Mode**

Now you’ll make some changes in the Preferences dialog box to get your stack ready to share with others.

1. Open the **Preferences** dialog box by clicking **Edit** and selecting Preferences.
2. Select Presentation mode… to open the **Presentation Options** dialog box. Select a color. This color will surround your card on the monitor screen so desktop commands cannot be clicked inadvertently. Deselect Show the title bar, and choose OK to return to the **Preferences** dialog box.
3. Lock all Text Objects by clicking **Extras** and selecting Text Field Tamer. Select Read Only and Entire Stack.

4. Hide the Menu bar on all cards except the card you are currently on by clicking **Extras** and selecting Menu Tamer. Hide the Menu bar on the current card by pressing Ctrl/Command M.

To recap Card 5, you

- Used Starfield NBA
- Created a Button from clip art
- Added sound from a CD
- Used the Go to URL action to link to the Internet
- Recorded sound
- Learned how to manage sound files
- Used the Beveler effect
- Imported an image from a scanner
- Used the Box Maker feature
- Used the Texturize effect
- Used HyperLogo
- Tested your stack
- Set up the stack for presentation

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**A Brief History of Writing…**  The Lascaux Cave paintings and chiseled hieroglyphs are early examples of humankind’s inherent desire to communicate, create, and achieve immortality. The illuminated manuscript was considered a revolution of the imagination. Gutenberg’s invention of movable print allowed civilization not only to convey meaning, but also to share it widely. And, now, in this modern age, we transmit ideas for personal or business use through personal computers and multimedia software.

The leap from cave to computer is a long evolution of language, symbols, and communication. The next leap is surely being worked on, and will introduce even greater advantages in saving and sharing our ideas and crossing cultural boundaries.

Now that you have experimented with the HyperStudio features, the possibilities of manipulating text, graphics, sound, animation, video, and the Internet with this multimedia presentation and authoring tool are endless.

We hope that by moving through “A Brief History of Writing,” you have become familiar with the program and with HyperStudio’s hallmarks: exploration, invention, expression, knowledge, construction, and great fun in communicating. Welcome to the HyperStudio community!
# Chapter 6

## HyperStudio Shortcuts

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<td>TIF</td>
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<td>(Windows and Macintosh)</td>
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<td>GIF</td>
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<td>PCX</td>
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<td>TGA</td>
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<td>WMF</td>
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<td>TWAIN scanners and other TWAIN devices</td>
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<td>Some photo CD images depending on file format</td>
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<td>Macintosh supports PICS and MacPaint</td>
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Chapter 7
Tips and Tricks

Animation

- You can import and play GIF animations from the Internet. If needed, you can set a transparent color (the animation background) from the Animation dialog after importing the animation.

- If you need to animate one object a number of ways, copy what the animation action is attached to (the Button, for example) and paste this object on the cards. Then, from each object, open the animation and select New Path… from the Animation dialog box. This is much faster than re-selecting the file that contains the animation for each copy.

- You can animate anything you can put on your card. Animating small Text Objects without scroll bars, or painted text can add a lot of visual appeal to a card.

Buttons

- If you copy a Button that has an icon from one card and paste it onto another card, both the Button action and the icon will be copied. Buttons placed over clip art are different. Only the Button will be copied—not the artwork.

- You can see the outline of any invisible Buttons if you press the Command and Option keys at the same time (Macintosh) or the Control and Shift keys at the same time (Windows). This causes the Button to “flash” on and off. The Edit mode or Button tool does the same thing, but when the background is dark you won’t be able to see the Button outline.

- Wait until your stack is finished before attaching Buttons, but leave a space in the same spot for the Button on every card. Make the first Button, choosing the transition you want between cards. Use the Ctrl C or Command C, then the Ctrl V or Command V to copy the Button on every card. You only need to copy the Button once, then use paste as many times as needed. This pastes the Button appearance as well as the transition. This is a great time saver and gives your stack more uniformity.

- When you use a Button to go to “Another card,” wait until the stack is finished to assign the other card. Use the Ctrl or Command < or > commands to move between cards until the stack is finished.
• To remove a Button from a card, select it with the editing tool. When you see the red dotted lines, press the Delete key. This also deletes all the associated actions.

• When editing a Button, you can go directly to the Button Actions Menu without going through the Button Appearance menu. Press the Ctrl or Command key while you double-click on your Button with the editing tool.

• Many of the sounds included in HyperStudio are designed for Buttons. These sounds signal the user that the Button has been clicked.

Clip Art and Graphic Objects

• When you're designing a card, use a blank card as a “palette.” This card can be placed at the end of your stack or next to the card you are working on. This gives you a handy place to practice without making changes to your actual stack. These pages can be placed in a special stack if you want to use the ideas again.

• To resize clip art, select the image with the Square Selector tool. Grab a corner (or a side) of the selected area (your mouse will change from the four-headed arrow to the double-headed arrow cursor) and drag the mouse to size the selection. You can make an object double its original size or shrink it to half.

• HyperStudio’s new Media Window (click Options on the tool bar) makes adding art to your stacks easy. Make a folder labeled with your current project, add all of the art you need to the folder, then save it in the Media Library folder for HyperStudio. When you are creating your cards, click Options, Show Media Window, and then use the top menu bar to bring up your folder. All of your gathered art can be easily applied to the card using HyperStudio’s new Drag-and-Drop feature.

• Graphic Objects cannot be manipulated and colored as easily as clip art. To make a Graphic Object, first bring in the art as clip art. Size, rotate, change colors, etc. then, using the Lasso tool, select the art. Click Objects, then select Create a Graphic Object…. A dialog box will appear asking, “Do you want to turn the selected part of the screen into a Graphic Object?” Choose Yes. It’s a good idea to make a copy of the art first, then change the copy into the Graphic Object. You will still have the original clip art handy if you need to recolor or change the size.
Color

- Use the Standard Colors (Ctrl K or Command K) command only on a plain card. Using this command to reset the color palette can change the color of objects or backgrounds on an active card.

- Double-clicking on an individual color in the color menu when it’s torn off will let you reassign that color by choosing your favorite from the 256-color palette. Double-click a color in this 256-color palette, and you can choose from myriad possibilities.

- When a Button is highlighted, choosing a color from the Colors menu will set the text color inside the Button.

- You can manipulate all the color pixels in any highlighted area (use the Lasso tool, Square Selector tool, etc.). When the area is highlighted, choose Edit, Effects, and Replace Colors…. You then have the option of either replacing all of one color with another, or swapping two colors. Replacing is an easy way to change a blue image to a red one without using the fill tool or the magnifying glass. The exchange color option can quickly "invert" an image. This option works best with the lowest color option.

- Importing a Background in HyperStudio sets the colors for that card. Adding clip art doesn't. Once you’ve got a color set you like, you can click Objects, About this card…, and check "Lock colors." With the colors “locked,” using another background won’t change the basic color set.

- To use color to highlight an area in a piece of clip art, use the Magnifying Glass tool to make sure the area is outlined with no gaps, then apply solid color (use the Paint Bucket Fill tool) or a Gradient (from the Edit menu, choose Effects, then Gradients…). With complicated colors, this can be easier than trying to replace or exchange colors.

- With some objects, you cannot use the Paint Bucket Fill tool or other color tools to recolor the object. To get around this, fill or replace the color of any shape by highlighting the shape (a box or circle in the center of another object, for example), then choose Edit, Effects, and Gradients…. When the gradient dialog appears, select the same color from the two palettes and press OK. The selection is filled with a gradient of a single color. Of course you can also select a gradient with two shades.

- Look at the color of your Eraser tool (on the color palette) before you make a new card. The new card’s background color will be the same color as the eraser.
Copy/Paste

- You can quickly copy Buttons as well as Graphic or Text Objects and paste them in the exact spot on a new card:
  1. Click the object or Button to highlight it.
  2. Command C / Ctrl C copies.
  4. Command < or > / Ctrl < or > moves between cards.

You can repeatedly paste without recopying the object if you are pasting the same object. This is an excellent way to copy Buttons and transitions between cards. See the tip under Buttons.

- In Windows, hold down the Ctrl key while dragging a highlighted object or area to make a copy without moving the original.

E-Mail For Your Stack User

- You can create a Button that prompts the user to send e-mail. First create a Button using the New Button Action NetPage NBA. Instead of entering a URL in the NetPage NBA dialog, you enter mailto: followed by your e-mail address (no space or comma between the colon and your address). When users click the Button, their web browsers launch and prompt them to send mail to your or anyone’s address. This works with 'FTP' (File Transfer Protocol) commands for the Internet also.

HyperLogo

- To edit a Button that contains a HyperLogo script, go directly to the HyperLogo script editor by pressing Ctrl or Command while you click on your Button with the Browse tool.

I’m an Experienced User Setting

- If you select I’m an experienced HyperStudio user (click Edit, then Preferences), you can extract sounds from other stacks, programs, or any files having a sound.

Moving from Card to Card

- Test out the card (Button) transitions by using the Try It button (from the Transitions dialog box) while you design your stack.

- Buttons are a great way to add interactivity to your stacks, but you can also add button-like actions to Graphic and Text Objects (or any text within them), or even the card or stack itself. The Actions dialog box is attached.
to virtually every object. To set **Actions** to leaving or opening a card or leaving or opening a stack, click **Objects** from the menu bar and choose About this Card... or About this Stack....

- You can create interesting effects by using certain Button transitions. For example, you can have new text revealed if you use a Left to Right transition. The Dissolve transition allows objects to appear magically. You can also apply transitions to Text Objects using the HideShow NBA.

**Presentation Mode**

- To prepare your stack for presentation, create a polished appearance by picking a solid desktop color or desktop picture. To hide HyperStudio's Title Bar. Click **Edit** then the Preferences box. Make text boxes read only (so the cursor doesn't blink), and hide the menu bar by using the Menu Tamer Extra. To hide the menu bar on the card you are on, press Ctrl M or Command M. In presentation mode, the menu bar and the stack name and card number will be at the top left of your computer screen and not immediately above the card.

**Sharing Stacks**

- It’s a better idea to connect smaller parts of a stack (use Buttons) rather than creating one mega-stack. Think about your project as a book divided into chapters. This also allows users with less computer memory to play your stacks.

**Sound**

- The CD Play NBA is a great way to add sound to a card. To use this New Button Action, be sure the CD is in your CD player, but the player is OFF (not minimized). The Set Start and Set End buttons do not need to be clicked to set the start/end time. Clicking the Set Start and Set End buttons automatically sets these times to the Track Time, which you may not want. Remember to set the Set Start time at about 2 seconds (00:02:00) instead of 0 seconds (00:00:00). Very few tracks begin at exactly zero.

- For Macintosh users, hold down the Command key when you start recording to get better recording quality. Holding down the Option key will give you the best quality. While compression saves disk space, it also diminishes recording quality. HyperStudio on Macintosh automatically compresses sounds at a ratio of 6:1. Pressing the Command key changes this ratio to 3:1.
• It is possible to play two sounds at the same time. Set your Preferences to I’m an experienced HyperStudio user. Then, select Background Sound from the Audio Deck screen. A background sound will keep playing regardless of whether you start another sound. QuickTime audio also has a Background Sound option in the QuickTime movie dialog.

• HyperStudio will begin recording sound as soon as you click on record, and will keep recording until you click the mouse or press any key. Speak immediately and click the mouse the instant you are finished to avoid recording dead space, which uses up memory.

• When recording in HyperStudio, there are Disk-based sounds and Stack-based sounds. If you choose Disk-based sounds at the Audio Deck screen, then multiple stacks can use the same sound. The sound file is stored on disk and brought into memory only when HyperStudio needs it. The sound is not stored in the stack. Stack-based sounds allow multiple Buttons in a stack to share that same sound.

Stack Hints

• When you are working on a stack, many of the toolboxes or other helpful dialog boxes appear right in the center of your card. You can move these out of the way by dragging them (click their top bar). Easily dragged boxes include the Media Window and the Magnify tool preview box.

• If you are creating a large presentation, create a “Home stack” and a separate stack for each part of the presentation. Buttons will carry the user from stack to stack or back to the “Home stack.” This works especially well with information that is likely to change. You can change only one section, or add new stacks with new information very easily.

• Stacks in thousands or millions of colors can take advantage of JPEG compression to reduce the size of the file. Complete all editing of the background before selecting the option “Highest Compression for Backgrounds” in the Preferences Menu.

Starting HyperStudio with Macintosh

• On Macintosh, if you make a HyperStudio Alias, and put it in the Startup Items folder; then each time you start your Mac, you will go directly to HyperStudio. You can still choose Quit and go back to the Finder. Make Alias is found in the File menu of the Finder. The Startup Items folder is in the System folder.
Text and Text Objects

- Use Painted Text to identify objects on your art palette (see the section under clip art and Graphic Objects), but use Text Objects for all of the text in your stack. A Text Object uses very little memory compared to Painted Text, and can be easily changed. If you need text that will not go into a Text Object, save the text as a Graphic Object instead of Painted Text.

- If italicized characters seem to get clipped off, select the text by highlighting it, and then choose the same color you are already using. This forces HyperStudio to redraw the letters. If the last letter appears clipped, add a space after it.

- You can make text in a Text Object perform an action when clicked on (this is known as a Hypertext Link) by highlighting the text and pressing Ctrl L or Command L. Select Add Link to create the link, then select Actions... to assign the word(s) an action. To see a complete example, take a look at the Hypertext stack in the Techniques section.

- If some of your text seems to disappear, use the Text Object tool or the Edit/Selector tool and make sure the Text Object box is big enough. If the text just seems to be “slipping,” you probably have an extra space on the line before or after the text. Use the Browser tool and the cursor to check for empty space.

- With the HideShw 2 NBA (hide/show an object), you can make Text Objects appear on your screen when the user clicks a Button. With HideShw 2 NBA or the Multiple HideShow (for more than one Button), you can also use transitions. With practice, you can make words appear to scroll in any direction, at any speed, or perform other interesting actions.

- If you use the Hide/Show feature, attach the same feature to Objects, About this Card…, Things to do when leaving this card…, but select hide the Text Object. This prepares the card with the features hidden for the next user.

Tools Menu

- Press Shift-Tab to go back and forth between the Browse and Edit/Selector tool. This is handy when you are editing features that you need to try out with the Browse tool.

- Double-click on the Square Selector tool (when the Tools menu is torn off) to select the entire background. This is a good way to copy all the clip art or the background. It will not copy Text or Graphic Objects or Buttons. Use Copy Card (from the Edit menu) to copy the entire card.
• When you select something with the Lasso, you will see dotted red lines. This means that the image is floating on the card and is ready to be moved. Be careful not to click the mouse or drag the art until you see the four-headed arrow cursor. Moving the mouse slowly across the image will change the cursor to the pointer. If you accidentally move or paste the art, you can choose Undo from the Edit menu or press Ctrl Z or Command Z.

• Hold down the Shift key to draw a straight line with the pencil, the paintbrush, or the spray paint can. Hold down the Shift key when you use the Eraser tool and the tool will erase in a straight line. The horizontal or vertical direction is determined by which direction you first move the mouse.

• When you use the Lasso, whichever color is first clicked with the end of the rope (usually on the outside when you lasso something,) will be transparent on the inside of the clip art when you move it. For example, if the white background of a white-paned window is clicked first, the window will become transparent. This can be a spectacular effect if one clip art object is pasted over another (a “transparent window” over a garden background, for example.) Press the Option (Macintosh) or Alt (Windows) key while using the Lasso to temporarily disable this feature.

• If you select an object with the Lasso tool and the object has what seems to be a border around it, there is probably a color on the background that you can’t see. Change the color of the background. Use the Paint Bucket Fill tool (not the Edit, Erase Background command). You will instantly see the background of the clip art that needs to be erased before it can be closely lassoed. To override this feature, you can bring in clip art with the Lasso tool.

• The Lasso tool offers creative and interesting effects. For example, if you click the end of the Lasso tool (the rope end) in a colored area while holding down the Ctrl key, the entire area will be copied, and can be moved, re-colored, then replaced. If the clip art is on a black background with a lot of connecting black lines as part of the art, clicking the Ctrl key and the Lasso tool rope end in a black section of the art will produce a “negative” image of the clip art.

• Hold down the Ctrl key with the magnifying tool activated (but not clicked) to change the cursor to a grasping hand. This allows you to scroll the screen by simply dragging in any direction.
Undo Command

- You can press the Ctrl Z or Command Z to undo mistakes immediately after they were made. If you click the mouse or do other actions before you press Ctrl Z or Command Z, it will be too late to use undo.

- When you are trying something complicated with a card, insert a new card behind the card you are working on. Use the backup card as a practice card before building the original card.

Video

- To have just your movie screen dissolve after the last frame, in Actions, Places to Go, choose Another card. Select the card currently displayed (the one the movie plays on) as the other card. After your QuickTime movie plays, the last frame of the movie will dissolve. Be sure Show first frame and Erase when done are not checked.

- You can resize QuickTime movies, QuickTime VR panoramas and object movies within HyperStudio by dragging the side or corner. Note that making a QuickTime movie bigger will slow it down.
HyperStudio Frequently Asked Questions and Answers

How do I clear the text field after the GhostWriter NBA has finished typing my text?

There are two ways to achieve this:

1. Follow the instructions provided in the text windows of the GhostWriter NBA. Each “@” will have GhostWriter delete one space. For each character and space in the written field, add one “@”. For example:
   
   This is a simple test.@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

2. HyperLogo also provides a solution. Use the SETFIELDTEXT command. If you leave the designated text blank, SETFIELDTEXT will clear the text field. For example, your card has a text field named, “Text1”. The script to clear the field would look like this:
   
   SETFIELDTEXT [] “Text1 ’ ‘

I have registered my application, but every time I launch HyperStudio, I am asked to register the program again. What should I do?

This error only occurs when HyperStudio is run on a network volume or under some form of desktop security. Change settings to allow WRITE access to the HyperStudio folder, turn off the desktop security program, or deny WRITE access to the directory.

Web Server Configuration Note: Web Server Administrator information for the HyperStudio Browser Plug-in.
This information is useful for configuring several popular Web servers that support custom MIME entries with the proper MIME information for serving HyperStudio stacks. Note that your web server may not require all of the information given.

Action = BINARY
File Suffix = .STK
File Type = * (Try Text if necessary)
Creator = *
MIME Type = application/hyperstudio

I am unable to Open Stacks dated 2000 and beyond. What can I do?

The best solution is to update to the latest version of HyperStudio at the web site http://www.hyperstudio.com.

I have installed the HyperStudio plug-in. But when I try to view my stacks on the web I see:

a) a plug-in icon.
b) a broken plug-in icon.
c) a message telling me to locate the appropriate plug-in.

What should I do?

Try to view the stack locally by opening it directly within a web browser. If this works, then direct your Webmaster to our "Server configuration notes" posted on the HyperStudio plug-in page http://www.hyperstudio.com. If you cannot view stacks locally, reinstall the HyperStudio plug-in. Use the latest plug-in installer from our website.
When I try to use the Extras Manager, I am told that I cannot access it because HyperStudio is setup to be shared on a network. What do I do?

Update your copy of HyperStudio to prevent this error from occurring again.

I am trying to update HyperStudio but I get an error message saying, “Invalid version selected for the update process.” What happened?

There are two possible causes. First, you may have downloaded and tried to install the incorrect version. Try the first set of instructions to see if this is the case for you.

1. Launch HyperStudio.
2. Click Help and select About HyperStudio.
3. Record the version of HyperStudio you are using.
4. Download and run the appropriate updater.

The second cause is infrequent but occurs when updating from HyperStudio v3.2 to HyperStudio v3.3. This only happens on Macintosh. If this is the case proceed with these instructions.

1. Double click on your Hard Drive icon.
2. Double click on HStudio or HyperStudio for HD folder.
3. Find the HyperStudio program file.
4. Make sure that it’s called HyperStudio 3.2 and not HyperStudio 3.1.
5. If you need to rename the file so that it does in fact say HyperStudio 3.2 and run the update with HyperStudio v3.3 again.
When I try to load a stack, I get the message, “I'm sorry. The stack file cannot be loaded by this version of HyperStudio.” What is wrong?

This error occurs when mismatched versions of the install diskette and CD are used in older versions of HyperStudio. First, verify that the CD and diskette versions match. If they do and the error continues, your diskette is probably corrupted. For a replacement diskette please contact Technical Support at 1-800-HYPERSTUDIO (1-800-487-3778).

I have been saving my stack to a Novell network, and now HyperStudio cannot read any of the cards. What’s wrong?

Older versions of HyperStudio have problems with saving to Novell servers. Recent versions have enhanced network support. To prevent this problem go to our web site and download the latest update from the HyperStudio site at http://www.hyperstudio.com. We generally recommend allowing FULL access to the directory where the stack files are being saved. When FULL is not an option, give the following access parameters: READ, WRITE, DELETE, MODIFY and EXECUTE.

When I import an AVI nothing happens, or I get an error message that states, “The compression format of the AVI is not supported by QuickTime.” What do I do?

HyperStudio uses QuickTime to play back AVI's. QuickTime has limitations that cause compression problems. Older versions of QuickTime may not include the compression format used by the movie. These compression settings cannot be seen in HyperStudio. Your video capture software and many third party movie-editing programs such as Adobe Premiere will allow you change to settings
supported by HyperStudio (QuickTime). Please review the supported compression formats listed below.

- Cinepak Codec by Radius (most widely supported)
- Intel Indeo (R) Video Interactive
- Microsoft Video 1
- Microsoft RLE

These compression formats may prevent movies from playing in HyperStudio.

- Indeo Video 5.04
- Intel Indeo (R)Video Raw R1.1

Visit the web site for the manufacturer of the video capture board you are using and download the latest drivers. Go to www.apple.com and check for Apple Computer's latest version of QuickTime. With each new update, you'll see additional compression formats supported. Additional support for AVI and other media formats (MPEG) has been implemented in HyperStudio 4.

When I create stacks using a PC and open them on my Macintosh, resources are missing or out of place. If I create stacks on my Macintosh I have the same problem opening them on my PC. What gives?

Differences in versions may result in resources being stored differently. This can cause unresponsive hide/show NBA's, sounds not playing, some graphics not displaying or graphics displaying poorly. The resources are not lost when opening the stacks in different versions but they can be unavailable. Check the HyperStudio Reference Manual for cross-platform information.

To avoid color-handling problems between platforms, create stacks at thousands of colors (either 16 bit or High Color). Upgrade the version of HyperStudio running on the computers. The current updates for HyperStudio can be found at the HyperStudio web site http://www.hyperstudio.com.
Why don’t I have any of the Button icons, sounds, and/or NBA’s listed within my Sample fields?

HyperStudio accesses all of these files from the HS Samples Library or Samples.stk located in the HyperStudio program folder. If the file is not present, copy the stack from the HyperStudio CD to the same location as the HyperStudio program. This will bring these items back to the Sample fields. To edit the Samples stack, open it up in HyperStudio for complete information.

When I set the track times in my CD Play NBA, they do not hold. Why not?

Verify that the track time is set at Absolute. Access this by selecting the Options tab in the CD Player Setup dialog box.

Why do some imported images in HyperStudio come in too big?

This occurs when certain images are saved at a higher resolution than 72 dpi (dots per inch). If you are creating images, save them at 72 dpi. Alternatively, import images as clip art. Scale the image in HyperStudio, and if desired, convert it into a Graphic Object.

My multi-user version of HyperStudio used to let me save but no longer. What should I do?

Older multi-user versions of HyperStudio provided a 30-day grace period for filling out the registration card and sending it in. If you do not have the registration information, or are unsure as to whether it has been sent, speak with Knowledge Adventure Customer Service at 1-800-545-7677 for further assistance, or send e-mail to hyperstudio@education.com.
Why can’t HyperStudio find any of my disk-based resources?

HyperStudio stores the location of and "remembers" the complete path to all the disk-based sounds and movies used by a stack. If a stack is moved to another computer, the path may be different, and HyperStudio won’t know where to look for the disk-based resources.

When creating links between multiple stacks or when linking to disk-based resources, keep all of the stacks and disk-based resources in the same folder. This is important if making a project intended for distribution on CD-ROM. Because the volume name or label is often different, the stack links break. Keep movies and disk-based resources such as sound, text or graphics, in the same folder as the stack. Alternately, store them in a folder at the same level of the stack(s) and relink as needed.

How do I remove the Title bars?

To hide Title bars

1. Click Edit and select Preferences (Ctrl/Command ;).
2. Select the Presentation Mode option.
3. Deselect the Show the Title Bar option and choose OK.

To hide (or show) the Menu bar for a particular card, press Ctrl/Command M or select Hide Menu Bar from the Options menu.

If you want to hide ALL of the menus throughout the stack, use the MenuTamer Extra. This Extra will allow you to hide menus for all of the cards in the stack except for the current card. Use Ctrl/Command M to hide the menu bar on the card you're on.
Why can’t I find the Features option in my Button, Text, or Graphic Appearance dialog boxes?

To activate this option
1. Click Edit, and select Preferences (Ctrl/Command ;).
2. Check I’m an experienced HyperStudio user.
3. Choose OK. The Features option will now appear in the dialog boxes.

How do I make my stack fill the screen?

The default HyperStudio card size is 512x342. The default size for HyperStudio v4.0 is 512x384. The typical monitor setting is 640x480 or higher, 800x600, 1024x768 for instance.

To convert the existing stack to full screen
1. Click Objects and select About this stack.
2. Select Change # of Colors or Size.
3. From the pull down menu, choose a card size that matches your monitor setting.

This method will stretch your current cards to fit the new card size. However, Graphic Objects may distort producing undesired results.

To create a new stack that is full-screen
1. Click Edit and select Preferences (Ctrl/Command ;).
2. Select I’m an experience HyperStudio user and choose OK.
3. Click File and select New Stack.
4. HyperStudio will ask you if you want to use the same card size as your current stack.
5. Select no, and choose the card size (and colors) you want to use.
6. In HyperStudio 4, check Use as default for new stacks. All new stacks will use the new settings.
Why do imported images in HyperStudio, seem grainy and/or smeared?

Older versions of HyperStudio stacks were delivered at 256 colors. New stacks used this color depth. If your images were created in thousands or millions of colors, HyperStudio pared down the images to 256 colors, which causes the images to lose quality. Solve this problem by changing the color depth of the stack.

1. Click Objects and select About this stack.
2. Select Change # of colors or size.
3. Select the color that matches the display color depth.
4. Choose OK.
5. Choose OK again.

Why won’t HyperStudio accept my registration number?

First, verify that you're typing in the correct number (be sure that you don’t have Caps Lock on). If it still doesn’t work, contact Customer Service at 1-800-545-7677 for further assistance or e-mail us at hyperstudio@education.com.

When I open a new stack, why does my Menu bar only provide me with FILE, EDIT, MOVE, and HELP? (You may only see a black screen as well).

Be sure you are running the HyperStudio program and not the player (stacks to go). Older versions of HyperStudio were a two-part install (CD and floppy disks). If only the CD was installed, the Home Stack is launching through the HyperStudio Player, which is a viewing tool only. This problem was caused when you installed only the resource CD. Run the installer from your program floppy disks.
Alternatively, the stack may have been locked with a password. (Click Edit and select Preferences to verify this.) If the Locked option is grayed out it means someone has locked the stack. If you do not know the password and the stack is not a commercial application, please contact Technical Support at 1-800-HYPERSTUDIO (1-800-497-3778) for assistance.

When I record into HyperStudio, and try to playback my sound, I am told that the file is not supported. What’s up?

Update your copy of HyperStudio. If you still experience difficulties install the latest version of QuickTime.

I cannot print 2 cards per page. Why is every other card in my stack coming out blank?

This is a printing related issue that can be fixed by downloading the latest update to HyperStudio. This is the only solution. We recommend printing one card per page or four cards per page if updating is not possible. In HyperStudio 4, try using the print function from within the Storyboard Extra.

I am having trouble printing my stacks in HyperStudio. Why does my printer just print out blank pages?

Update to the HyperStudio 3.3. It provides improved printing support with LaserJet printers. We also recommend updating your printer drivers.
Macintosh FAQs

I keep getting an error telling me that a duplicate copy of HyperStudio is running. I can only have one machine launch HyperStudio at a time. What’s wrong?

You are probably using the Apple Bundle v2.0 of HyperStudio, a single user copy of HyperStudio. If your Macintosh computers are networked together or to a printer, update your copy of HyperStudio from 2.0.92s to 2.0.97s or higher from our web site at http://www.hyperstudio.com.

When I try to open my stack file, I am told that it is already in use. What can I do?

To correct this error, locate the stack file and click on it once to highlight it.

1. Click on File and select Get info.
2. Select the Locked box checkbox option at the bottom left of the Get Info dialog box.
3. Open the stack in HyperStudio.
4. A message appears stating that the stack file is locked and that the user will not be able to make any changes.
5. Choose OK.
6. Click on File and select Save As.
7. Save the stack under a new name to a location on your hard disk.
8. Delete the old stack.

When I launch HyperStudio, I am repeatedly asked to install QuickTime. What should I do?

1. Double click the main Hard Disk icon.
2. Double click on the System Folder icon.
3. Double click on Extensions icon.
4. Locate all QuickTime related files, including QuickDraw3d, and drag them into the Trash.
5. Restart the computer.
6. Reinstall QuickTime using the HyperStudio CD.
7. Restart the computer.

**QuickTime installation will not complete because HP Background could not be closed. What can I do?**

Copy the QuickTime installer from the HyperStudio CD, to your desktop. Restart your machine with all extensions off while holding down the Shift key. Run the installer you copied to your desktop. When the installation is complete, restart the computer before running the program.

**When I record using HyperStudio, the sound seems distorted or scratchy. How can I improve the sound quality?**

To improve the sound quality, press and hold down the Option key while recording in HyperStudio. Already existing sound will not be affected, but you can re-record into the tape deck and prevent this problem from occurring again. (Caution: Higher quality sound files take more memory.)

**When I view my stack files locally and on the web, my Internet browser crashes. What’s wrong?**

Check that sufficient RAM (Random Access Memory) is allocated to the "Preferred memory" of your browser software. (See Type 1 error below.)

**When I save my stack to the network, I am told that I do not have enough disk space, or that the disk is locked or not online. What do I do?**

In earlier versions of HyperStudio, we did not support volumes with more than 2GB of free space. This is a Mac OS limitation. Update to the latest version of HyperStudio from the HyperStudio Web site at http://www.hyperstudio.com.
Macintosh Error Messages

Type 1 Errors

Type 1 errors generally refer to the application running out of memory. Try allocating more RAM to the "Preferred memory" setting of the program.

To identify available RAM in your system and adjust the Preferred Memory

1. Click on the Apple Menu at the top left corner of the menu bar.
2. Select Profiler, About this Computer, or About this Macintosh depending on which system you have.
3. The amount of memory (RAM) you have available shows in the dialog box that appears.
4. Locate your preferred browser on your hard drive.
5. Click on the browser icon once to highlight it.
6. Click File on the main menu bar and select Get Info.
7. In the Get Info dialog box, select Memory from the Show: pull down menu.
8. The Application Memory Requirements is displayed.
9. Adjust the number in the Preferred Memory text field upwards an additional 1000 to 4000k. Remember, stay within the limits of your available RAM.

Type 1 errors or freezes can also occur when the BlabberMouth NBA is selected.

To prevent this error download the updated BlabberMouth II NBA from our web site at http://www.hyperstudio.com. Place the new NBA into the "NBA’s and Extras" folder located within the "HyperStudio" folder. Allow the new NBA to overwrite the old file. Click on the "Disk library" option and select the new NBA from this location. Do not select the NBA listed in the "Samples" window. Be sure to delete the old BlabberMouth NBA from the Samples library, and replace it with the updated one for your convenience.
Type 2 Errors

If this error occurs during the startup of HyperStudio
1. Click on the Apple menu item.
2. Click on Control Panels.
3. Click on Monitors and Sound.
4. Set your monitor color depth to 256 colors or higher.

If the error is not resolved
1. Double click the main Hard Disk icon.
2. Double click on the System Folder icon.
3. Double click on Extensions icon.
4. Locate all QuickTime related files (including QuickDraw3d) and drag them into the Trash.
5. Restart the computer.
6. Reinstall QuickTime from the HyperStudio CD.
7. Restart the computer.

For HyperStudio 3.1.7, determine the operating system on your Macintosh.
1. Click on the Apple menu item
2. Select About this Macintosh, About this Computer, or Apple Profiler
3. If you have Mac OS 7.1 we recommend upgrading your operating system to at least Mac OS 7.5.3.

Note: HyperStudio 4 requires a minimum system requirements of Mac OS 8.1 or higher.
Type 11 and Type 15 Errors

These errors are usually caused by an extension conflict. Restart the machine with "Base OS" extensions only.

1. Click the Apple menu item.
2. Select Control Panels.
3. Choose Extensions manager.
4. From the pull down menu in the Extensions Manager dialog box, select the Base OS option.
5. Restart the computer.

If the problem still occurs, please contact Knowledge Adventure Technical Support at 1-800-HYPERSTUDIO (1-800-497-3778).

Type 22 Error (when using the CDPlay NBA)

If this error occurs while using the CDPlay NBA, download the updated CD Play NBA, (version 3.43 or higher), from our web site at http://www.hyperstudio.com. The new NBA is located within the "Update library" under the "Macintosh" option. Place the new NBA into the NBA’s and Extras folder in the HyperStudio for HD folder. Allow the new NBA to overwrite the old file. Be sure to delete the old CDPlay NBA from the Samples library and replace it with the new one.

Type 36 and Type 39 Errors (with HyperStudio v3.2 or older)

These are always disk-related errors. If the error occurs during the installation of HyperStudio, contact Knowledge Adventure Technical Support for replacement media. If the error occurs while you are saving your stack to a floppy, save it to the hard disk first and then save it to the diskette. If necessary, use a new diskette. If this occurs while saving to a hard disk, run some form of system diagnostics program, such as Norton Utilities™.
Miscellaneous Errors

1. An error prevented the update from completing, (RESU 100)

The HyperStudio application has not been registered. Register the application and try running the update again. If this fails, restart the machine with all extensions off while holding down the Shift key. Then, re-register the program, and try the update.

2. "Resource has been modified" error during the update process

Reinstall HyperStudio. Be sure to register the application. Once this is complete, restart the machine with all extensions off while holding down the Shift key. Then run the updater again.

Windows FAQs

When I launch HyperStudio v3.2 (or older), I am asked for either the Paige32 or the Paige.dll (sometimes may be the Vic32 or the Vic.dll). What does this mean?

This error is usually caused by using mismatched versions of the install diskette and the install CD for older versions of HyperStudio. First, verify that the diskette and CD versions are the same. The files mentioned in the error message will be located on the CD. You might also try copying the .DLL files into the HyperStudio program directory and to the Windows System directory. If this doesn’t work, your diskette is probably corrupted. Contact Knowledge Adventure Technical Support for replacement media at 1-800-HYPERSTUDIO [800-497-3778].
When launching HyperStudio, I am given an error that says, "Sorry. Unable to access WAV output device." What should I do?

We recommend you update to HyperStudio version 3.2 or higher. Download the most recent version of QuickTime, and update your sound card driver.

When launching HyperStudio, I am asked for the AVICAP32.DLL. How can I fix this?

This error only appears in versions of HyperStudio older than v3.2. It can be handled one of two different ways.

1. Update to the latest version of HyperStudio as well as the latest version of QuickTime.

2. Insert your Win95/98/NT OS installation CD in the CD-ROM drive.
   a. Click **Start** and select Settings.
   b. Double click **Control Panel**.
   c. Double click on Add/Remove Program.
   d. Click on the Windows Setup Tab (or the NT Setup Tab).
   e. Remove the checkmark from Multimedia.
   f. Choose Apply.
   g. Place the check back in Multimedia and choose Apply, then OK.
   h. Close out the Control Panel and restart the computer.

When launching HyperStudio, I am asked to uninstall the program, or I am told the shortcut could not find the appropriate EXE file. What do I do?

Older versions of HyperStudio are installed with both a floppy diskette and a CD. In this case, you have fully installed the CD, but have not installed with the floppy disk.

1. Place the program floppy disk in the [A:] drive.
2. Double click on My Computer.
3. Double click on [A:].
4. Double click on the run_last.exe.
5. Select the Maintenance installation option.
6. Follow the prompts to complete the installation.

**When I launch HyperStudio, I am told that HyperStudio requires 256 colors to run. What do I do?**

HyperStudio requires at least 256 colors to operate. Most PCs are able to display at least 256 colors but the driver may need to be updated.

To change the driver the computer is using

**Windows 3.X - Contact your computer manufacturer to obtain a 256 color video driver and installation instructions.**

**Windows 95/98**

1. Click Start and select Settings.
2. Double click on Control Panel, then double click on Display.
3. Click on the Settings tab.
4. Click the down arrow above the “rainbow” colored line and select 256.
5. Choose Apply.
6. If prompted to restart your computer, choose Yes.
7. If another message appears asking if you wish to keep this setting, choose Yes.

**Windows NT**

1. Click Start and select Settings.
2. Double click the Control Panel.
3. Double-click on Display.
4. Click on the Settings tab.
5. Click the down arrow above the “rainbow” colored line and select 256.
6. Choose Test.
7. If the next screen is correct, choose Apply when it returns to Windows. (Do not click Apply if this screen appears incorrectly. The setting you have chosen is incompatible with your Monitor/Video card. Try a different setting.)
8. Choose OK.

**Windows 2000**
1. Click Start and select Settings.
2. Double click on Control Panel.
3. Double click on Display.
4. Click on the Settings tab.
5. Click the down arrow above the “rainbow” colored line and select 256.
6. If the next screen is correct, choose Apply and then OK when it returns to Windows.

**Please Note!** If you are not completely comfortable with changing the Windows drivers, or if you are not sure the system came with additional drivers, contact the vendor that sold you the computer. Drivers are generally free, and the vendor will be able to supply the most current driver for your operating system.

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**I can’t get the Spell Checker to work in HyperStudio. I am told that HyperStudio cannot find, or cannot open the appropriate dictionary file. What can I do?**

First, make sure that you have the **Dictionaries** directory within the **Hstudio** folder. If so, then follow the instructions below.

1. Double click on **My Computer**.
2. Double click on [C:] drive.
3. Double click on Program Files.
4. Double click on HStudio.
5. Double click on Dict.
6. Choose the desired dictionary.
7. Click **File** at the top of the window and select Properties.
8. Deselect Read Only and select **Archive**.
9. Launch HyperStudio and try the Spell Checker again.

**Why doesn't the Windows version of HyperStudio support the BlabberMouth NBA?**

The BlabberMouth NBA for Macintosh uses the Macintosh Speech Manager located within the Extensions folder. Unfortunately, the Windows platform does not ship with its own built-in text to speech program. The BlabberMouth NBA is included in HyperStudio 4 for Windows and includes support for text to speech but a speech program must be acquired separately.

**When I try to play a movie in HyperStudio, the only option I am given is "Video for Windows." What's wrong?**

QuickTime installation was not required to run versions of HyperStudio prior to 3.1. Obtain the latest version of QuickTime and install it (http://www.quicktime.com).

**I do not have any of the button icons, sounds, and/or NBA's listed within my Sample fields. How can I fix this?**

HyperStudio accesses all of these files from the Samples.stk located within the HStudio folder. To add these files to the Samples.stk

1. Click **Start** and select Find.
2. Click on Files or Folder.
3. Type Samples.stk in the Name field.
4. Verify that Look In displays the [C:] drive. (If not, change it so that it does.)
5. Choose Find Now.
6. If you cannot find it on your hard drive, copy Samples.stk from the HyperStudio CD to the HStudio folder.
When installing HyperStudio, I am told that the "Light.ttf" font file could not be copied to the Fonts folder. What happened?

This error only occurs when Microsoft Office is running in the background.

1. Press the CTRL, ALT, and Delete keys on the keyboard at the same time and then release them.

2. The **Close Program** dialog box will appear. NT and 2000 users need to select the Applications tab.

3. Highlight and close all applications except Explorer and Systray. (If you close either Explorer or System you will have to begin again.)

4. Highlight the other running applications one at a time and choose End Task.

5. If a box appears that says, “This program is not responding,” choose End Task.

6. Press the CTRL, ALT, and Delete keys on the keyboard at the same time and then release them to open the **Close Program** dialog box again. (Repeat this procedure until the only programs left are Explorer and Systray.)

7. Choose Cancel.

**Windows Error Messages**

**I/O Error While Installing HyperStudio v3.2 or older**

Manually install the program using the following procedures. Place the HyperStudio program CD and diskette in their respective drives. Do not start the program installer. These procedures involve copying files, renaming files, and changing file attributes. If you are not familiar enough with your computer to complete them, contact Knowledge Adventure Technical Support at 1-800-HYPERSTUDIO (1-800-497-3778).
Copying the HStudio folder from the CD-ROM to the hard drive.
1. Click on **Start**.
2. Click on **Programs**.
3. Click on **Windows Explorer**.
4. Scroll down in the left-hand panel until you find the CD-ROM drive. It will have a HyperStudio [D:] label. *(Note: A different letter may designate your CD-ROM drive.)*
5. Click on the + sign on the left of the HyperStudio CD Rom.
6. Right mouse click once on the HStudio folder.
7. Left mouse click on **Copy** in the resulting menu.
8. Scroll back up the left hand panel to find the Program Files folder. Right mouse click once on it.
9. Left click on Paste.

Copying .DLL files from the CD-ROM to the hard drive.
1. Click on **Start**.
2. Click on **Programs**.
3. Click on **Windows Explorer**.
4. Scroll down in the left hand panel and find the CD-ROM drive (HyperStudio [D:]). *(Your CD-ROM may be a different letter than “D.”)*
5. Click on the + sign to its left.
6. Click on the + sign to the left of the Utility folder.
7. Single click on the Win_95NT folder to highlight it. In the right-hand panel, you should see the following .DLL files:
   i. AVIFile.dll
   ii. MSVCRT10.dll
   iii. MSVideo.dll
   iv. Paige32.dll
   v. VIC32.dll
8. While pressing the CTRL key, click once on each of the listed files above to highlight them.
9. Right click on any of the highlighted files and left click on Copy.
10. Scroll up in the left hand panel and find the Program Files folder. Click the + sign in front of it.
11. Scroll down to the HStudio folder, right click on it, and click Paste.

**Copying font files from the CD-ROM to the hard drive**

1. Click on **Start**.
2. Click on **Programs**.
3. Click on **Windows Explorer**.
4. Scroll down in the left hand panel to find the CD-ROM drive (HyperStudio [D:]). (Your CD-ROM may be a different letter than “D.”) Click on the + sign on its left.
5. Click the + sign to the left of the Utility folder
6. Click on the HSFonts folder to highlight it. In the right-hand panel, you should see the following font files:
   - Light.ttf
   - Market.ttf
   - Mlsaa.ttf
   - Mlsae.ttf
   - Mlsar.ttf
   - Mlsgf.ttf
   - Mlsgi.ttf
   - Mlsgt.ttf
   - Mlsgu.ttf
   - Paint.ttf
   - School.ttf

7. Press and hold the CTRL key, and click once on each of the files above to highlight them.
8. Right click on any of the highlighted files and left click on Copy.
9. Scroll up in the left hand panel to the Windows folder and Click the + sign in front of the Windows folder.
10. Scroll down on the left to the Fonts folder, right click on it, and left click on Paste.
HyperStudio 3.2 Disk Installation.
1. Double click on My Computer.
2. Double click on 3 ½ Floppy Disk.
3. Double click on run_last.exe.
4. Select: This is my first time installing HyperStudio and choose Next.
5. Choose Continue or Next when prompted.
6. At the Select Destination Directory screen the install location must read C:\Program Files\HStudio.
7. Choose Next, then Next again when prompted.
8. Choose Finish when prompted.

Setting file attributes
1. Double click My Computer.
2. Double click [C:].
3. Double click Program Files.
4. Double click HStudio.
5. Click Edit at the top of the window and choose Select All.
6. Click File at the top of the window and choose Properties.
7. Place a check mark in Read Only under Attributes.
8. Choose Apply, then OK.

Setting file associations
1. Double click My Computer.
2. Double click [C:].
3. Double click Program Files.
4. Double click HStudio.
5. Double click Home.stk.
6. The Open with dialog box appears. Choose Other.
7. Locate and double click HStudio.exe in the next dialog box.
8. Locate HStudio in the list select it.
9. Verify that Always use this program to open this file is checked and choose OK.

**Creating a Program Shortcut**
1. Double click My Computer.
2. Choose Program Files and then choose HyperStudio.
3. Open the HyperStudio folder and right click on the HyperStudio.exe icon.
5. Drag and drop the icon to your desktop.

**Installing QuickTime and Adobe Acrobat Reader. (If QuickTime and Adobe Acrobat Reader have not been previously installed on your computer, you will need to install them from the HyperStudio CD.)**

To install QuickTime 3.0
1. Click **Start** and choose Run.
2. Type in: D:\Utility\QTime\QuickTime_30\QuickTime_30.exe.
3. Choose OK.
4. Follow the prompts to complete the installation.

To install QuickTime 2.1.2.59
1. Click **Start** and select Run.
2. Type in: D:\Utility\QTime\Win_95NT\qt32.exe
3. Choose OK.
4. Follow the prompts to complete the installation.

To Install QuickTime Plug-in
1. Click **Start** and select Run.
2. Type in: D:\Utility\QTime\Win_95NT\qtplug32.exe
3. Choose OK.
4. Follow the prompts to complete the installation.
To install Adobe Acrobat 3.0
1. Click Start and select Run.
2. Type in: D:\Utility\ACROWIN\Setup.exe
3. Choose OK.
4. Follow the prompts to complete the installation.

Fatal Exception OE Errors with HyperStudio
Older versions of HyperStudio for Windows 3.0 or older, use the 16 bit QuickTime, so there is a chance that you could get the Fatal Exception OE error with an ATI or any TNT based chipset video card.

1. Click Start and select Run.
2. Type in qtw.ini
3. Choose OK.
4. Edit the line that says Optimize= to say Optimize=BMP.
5. Close the window, and save the settings when prompted.

Divide Error when starting HyperStudio
This problem is related to a corrupted or out of date sound card driver. Update the driver and start HyperStudio again. If the problem persists, please contact Technical Support at 1-800-HYPERSTUDIO [1-800-497-3778].
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