The purpose of this paper is to provide information about obtaining and using HyperCard stacks that introduce users to principles of stack development. The HyperCard stacks described are available for downloading free of charge from a server at Indiana University South Bend. Specific directions are given for stack use, with advice for beginners. A list of questions acts as a study guide for HyperCard, and directions are given for downloading.
Principles for Instructional Stack Development in HyperCard

A presentation at the 39th Annual Meeting of the International Reading Association,

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Abstract

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Principles for Instructional Stack Development in HyperCard


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How to use the IRA '94 HyperCard stacks

1) Find a Macintosh computer with HyperCard (or HyperCard Player) installed.

2) Power up the Mac and the monitor (i.e. turn them on - there are 2 switches, both in the back).

3) Check to see that the Macintosh speaker volume is turned up (so you can hear the audio parts).

   A) Click on the Apple menu item and hold the mouse button down. (The Apple menu item is at the upper left-hand corner of the screen and actually looks like an apple.)

   B) While still holding down the mouse button, move the mouse toward you until the Select Control Panels option in the Apple menu darken, THEN release the mouse button.

   C) When the Control Panels window appears, double-click on the Sound control panel (it looks like a little speaker). A double-click consists of two rapid clicks of the mouse button. If you don't see the cursor change (probably to a little wrist watch) you didn't click fast enough.
D) The Sound control panel will appear as another popup window. Adjust the volume by placing the cursor (now an arrow) over the slider bar, press down on the mouse button and HOLD. Then move the mouse in the direction you want to move the bar while still holding the mouse button down (forward for up, backward for down). Set the audio slider bar to at least 3 or 4. If you’re not concerned about disturbing anyone set the volume to 7.

E) Close the Sound control panel by clicking in the small box in the upper left-hand corner.

F) Close the Control Panels window by clicking the small box in the upper left-hand corner.

4) Insert the IRA '94 diskette in the floppy drive.

5) Double click on the IRA 94 diskette when it appears on your screen.

6) Double click on the IRA 94 folder when it appears on your screen.

7) Double click on the stack labelled IRA94. (You can access the How To stack from within the IRA94 stack.)

8) Click on the Quit button to leave either of the IRA '94 or the How To stacks.

9) Click on FILE in the upper left-hand corner of the screen and HOLD the mouse button down.

   Move the cursor down to Quit HyperCard to close HyperCard and return to your Macintosh desktop.

10) Click on Special, HOLD the mouse button down, move the cursor to Shut Down and release.

   Turn off the switches for the computer and the monitor after the screen tells you. Your Mac is now "powered down."
Some advice for beginners

The IRA '94 stack is intended to be fairly self-explanatory but it does presuppose some HyperCard and Macintosh conventions. Anything that looks like a button probably is one. Clicking on buttons is the usual method for moving around in the stack. The little triangles in the lower right- and left-hand corners will also move you through the stack sequentially. The arrow just above the right-hand triangle will return you to the opening screen. The Quit button exits the stack (and returns you to your HyperCard Home card).

Don't be afraid to explore. Follow whatever path happens to attract your interest. Although there is an overall sequential structure to the stack you are not obliged to follow it. Use the buttons at the bottom of the screen to go to any of the five sections of the stack. You can return to the opening screen at any time by clicking on the arrow button to the right of the Quit button. When you're familiar with the HyperCard environment you may want to move on to the How To stack in the Resources section. The How To stack introduces a number of basic principles of stack development.

A HyperCard study guide

1. What are some a) obvious and b) not-so-obvious differences between reading in HyperCard and reading printed materials? How did these differences influence the way you read the IRA '94 and How To stacks?

2. Like any other computer-based system HyperCard can keep track of lots of information including information about how it is being used by readers. It can, for instance, keep track of
the path a reader takes through a stack or how long the reader stays on each card. How might these features contribute to instruction?

3. What are the disadvantages of using HyperCard as an instructional medium? (If you can't think of any disadvantages you've either been blinded by the light or you're not thinking hard enough.)

4. What does the HyperCard code (Copy-Adapt-Create) suggest about how HyperCard might be used to promote cooperative learning (as opposed to individual computer use)?

5. HyperCard stacks sometimes adopt "metaphors" to help users (e.g. HyperCard as a book, the spatial metaphor noted in the IRA '94 and How To stacks, etc.). What are some other metaphors that might help users? For example, how might a board-game or maze format help students understand the concept of stack branching? How might these same formats promote active reading by encouraging predictions and prediction-checking by readers?

6. Typically new technologies start out being used to do something we already do but in a more efficient manner. What is something you are currently doing in your classroom that HyperCard could do for you in a more efficient manner?

7. As technologies begin to mature they are increasingly applied in new ways that allow people to do things they never could before. Can you think of an activity that HyperCard might let you
do in your classroom that you have never been able to do before?

8. Did you figure out how to ring the school bell in the IRA '94 stack?

9. Did you discover the hidden buttons in the Graphics section of the How To stack?

10. I developed the IRA94 stack on HyperCard 2.2. When I was preparing distribution disks I noticed that I had taken advantage of a feature of HyperCard 2.2 that did not work properly in version 2.1 (or earlier versions). If you are running the IRA94 stack on a HyperCard version 2.1 (or less) you may have noticed this flaw on the "interactive" card that branches from the "Why use it?" section. What is the problem with this card? How might this flaw be fixed?

11. What else could be done to improve on these stacks?

12. Can you think of a way to adapt these stacks for elementary grades children?

Downloading the IRA '94 HyperCard stacks

The IRA '94 HyperCard stacks can be downloaded via anonymous ftp by connecting with the IUSB server (149.161.2.37) using "Anonymous" as your login and your email address (user@host) as your password. Move to the "Files" directory by typing "CD FILES" and then hit return. Type "BINARY" so the server knows to transfer binary files. Select the files for transfer (How_To.hqx and IRA_94.hqx) and ftp them to your site by typing "GET"
HOW_TO.HQX" and "GET IRA_94.HQX" (Be sure to leave a space between "GET" and the
filename.) After the files are successfully retrieved they must be decompressed using the
Macintosh Binhex utility so they will run under HyperCard. To retrieve these stacks you must
have access to a local ftp program. Ask your local computer support personnel for assistance if
you are unsure about the services available on your campus.