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L-Cut

From video editing, an L-Cut is a more complicated variation on the simple cut. In an L-Cut, the audio from clip is heard for a few seconds while a second clip is visible. For example, a movie shows a green pasture, you hear the sounds of cars honking and the video changes to a street scene.

The name L-Cut is used because when looking at the two pieces of film and the sound track, the cut looks like an L. The following figure demonstrates an L-Cut created in Adobe **Premiere** .

To create an L-Cut, you need to use a sophisticated QuickTime editing programs, such as Premiere or Strata's **VideoShop** .

See Also
Cut; Jump Cut; Premiere; Transition; VideoShop

Labels

The Labels Control Panel enables you to customize the colors and names for labels **in the Labels menu** in the **Finder** . To pick a custom color for your label, click the color swatch and the **Apple color picker** appears giving you a wide range of color choices. Simply click the color you want and click OK. You can also edit the label names by **highlighting** the label's name and typing a name of your own.

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To use the Labels Control Panel, follow these steps:

1. Select Labels Control Panel from the Control Panels submenu on the Apple menu (or System Folder).
2. Double-click to open the Control Panel
3. Click the color swatch to select a new label color. The Apple Color Picker appears, enabling you to pick the color of your choice. After you make your choice, click OK.
4. To change the name of a label, highlight the label and type your own name. Close the control panel when completed.

See Also
Apple Color Picker; Finder; Highlighting; Labels Menu; Views

Label Command

At the **Desktop,** you have the option of labeling a file (and color coding it if you have a color monitor) using the Label command found on the **Labels menu.** You can use this labeling feature to help you visually find items in a list and to enable sorting by ever-defined categories. The individual colors or names the label command assigns, are edited through the **Labels Control Panel** in the **Control Panels Folder.**

To assign a label to an item, follow these steps:

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1. At the Desktop, select the item you want to label by clicking it .
2. Choose the color and label you want from the Label menu.
3. The item's icon color changes to your color choice, labeling it with that color and that color's corresponding name.
4. To edit the color, or label name, choose the Label Control Panel from the Control Panel folder (on the Apple menu).

See Also
Control Panels; Desktop; Label Control Panel; Label Menu

Label Menu

The Label menu, appearing at the **desktop** , gives you the option of labeling a file (or color coding it if you have a color monitor). You can use this labeling feature to help you visually find or sort items in a list or window. The individual colors and names the label command assigns can be edited through the **Labels Control Panel** in the **Control Panels folder.**

To assign a label to an item, follow these steps:

1. At the desktop, select the item you want to label.
2. Choose the color and label you want from the Label menu.
3. The item's icon color changes to your color choice and is labeled with

that color's corresponding name.

4. To edit the color or label name, choose the Labels Control Panel from the Control Panels folder.

See Also
Control Panels; Desktop; Label Control Panel; Label Menu

Landscape

See
Printing Terms

Landscape Orientation

See
Orientation

Language, Programming

See
Programming Languages

L

Language Kits

See
Foreign-Language Page Layout

Laptops

See
Portable Computers, Macintosh Family, PowerBooks

Laser Printers

See
Desktop Printers

LaserWriter

See
Desktop Printers

LaserWriter Extension

This extension is a printer driver that enables you to use a PostScript Printer.

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The LaserWriter extension is accessed through the **Chooser** on the **Apple menu**. When you **click** the LaserWriter driver icon, a list of available laser printers appears in the window on the right.

See Also
Apple Menu; Chooser; Click; Icons; Printing

Lathing

See
Modeling

Launcher Control Panel

The Launcher is a smaller version of Apple's **At Ease** that enables users not familiar with the Macintosh to access documents and applications in a large floating palette. The Launcher operates like a floating **Apple menu**. To add an item to the Launcher, drag **aliases** or other items to the **Launcher Items folder** (in **System 7.5**, **drag** the items right onto the Launcher) where they are automatically added to the Launcher Items folder. You can add documents, **control panels**, folders, applications, and many other items to the Launcher for one-click access. To remove an item from the Launcher, remove it from the Launcher Items folder.

To have the Launcher appear at startup, select the option "Show Launcher at

System Startup" in the **General Controls Control Panel.**

To use the Launcher Control Panel, follow these steps:

1. Select the Launcher Control Panel from the Control Panels submenu on the Apple menu (or System Folder).
2. To add an item to the Launcher, drag the item onto the Launcher Control Panel. The Launcher automatically makes an alias of the file and places it in the Launcher Items folder.
3. If your system does not support drag and drop, add the item, or an alias of the item, directly to the Launcher Items folder. To launch an item from the Launcher, click it.

See Also
Alias; Apple Menu; At Ease; Control Panel; Drag and Drop; General Controls Control Panel; Launcher Menu Items Folder; System 7.5; System Folder

Launcher Items Folder

Items in the Launcher Items folder appear in the **Launcher Control Panel** window on the **desktop.** The Launcher enables one-click launching of documents or applications, and you can add **aliases** , applications, documents, and so on, to the Launcher by dragging their **icons** into the Launcher Items folder.

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See Also
Aliases; Control Panel; Desktop; Launcher; System Folder

Launching a Program

Launch is a computer term for starting or opening an application. Launching, or opening, an application can be accomplished in a number of different ways. You can **select** the application and choose **Open** from the **file menu** to **launch** the application. You can **double-click** on the **icon**, or an **alias** of the application's icon, and that will launch the application. You can place the application's icon, or an alias, in the **Launcher Items Folder** inside the **System Folder**, and that application can then be launched by just one-click on its icon in the **Launcher** window. You can also double-click or open any document created by an application, and the document finds the application it was created in, and launch that application for you.

See Also
Alias; Double-Click; File Menu; Icon; Launch; Launcher; Launcher Items Folder; Open; Selection; System Folder

Layout Templates, Using

PowerPoint, Microsoft's presentation program, comes with a very large

collection of templates to help you design your presentation with a consistent look. Templates incorporate a type style or styles, a color scheme, and usually one or more graphic elements, such as lines, patterns, or shapes. There are approximately 150 different templates in the package, divided into three separate categories: black and white overhead transparencies, color overhead transparencies, and slides—35mm slides and on-screen presentation slides.

Formats are applied either by using the Pick a Look Wizard or by choosing Presentation Template... from the Format menu. There's a Preview window that gives you a thumbnail view of the template. After you have found a style that you like, that doesn't clash with your subject matter, you can modify the template as necessary. Change the color scheme from options on the Format menu. Choose Slide Background to change the underlying color, or Slide Colors to change the colors of the type and accent graphics. Slide Background also gives you the capability to change the kind or direction of the gradation used, if any, and to lighten or darken the color.

Slide Colors... supplies a harmonizing color scheme to go with your choice of background. Each color scheme includes a set of eight carefully chosen colors to be used as the main colors of a slide presentation—the text color, the background color, fill colors, and so on. Using a color scheme helps assure that your presentation has a professional look. The PowerPoint color schemes have been chosen by professional artists specifically for presentation use. There is a good selection of contemporary and traditional combinations.

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If you change the background color to one of the 88 choices, you'll see a new palette of colors for the rest of the color scheme. If none of the combinations appeal to you, click the Choose Scheme button to open the Color Scheme dialog box. After you choose a background color, you can choose a different color for text and line. Then you'll see four thumbnails of a typical slide displaying your choices, with different combinations of accent, shading, and fill colors. Choose the look you like, click Apply to All, and every slide in your program will change to the new color scheme. Click Apply if you only want to change the colors on one slide.

The Slide Layout**...** dialog box lets you apply different layouts to your slides, depending on the kind of text or graphic element you are using. Again, you select from a choice of thumbnail sketches. You also can override these layouts by dragging the elements around on the slide as if you were using a draw program. You can also use the drawing tools in the tool palette to customize your slides.

See Also
PowerPoint

LCs

See
Education Models, Macintosh Family

L

Leader Characters

Leaders, or leader characters, are the solid, dashed, or dotted lines that you see between tabs in a list. They help to “lead” the eye across the page. When you have tabbed text, such as an index, table of contents, or a chart, leaders make the lines easier to read, because there’s an immediate visual connection between the words. Here’s an example:

Chapter 1, “With all my heart”..... 3

Chapter 2, “We’ll never part”..... 17

Chapter 3, “The meaning of romance”.....39

Chapter 4, “We break up”.....48

Chapter 5. “Just one more chance”.....52

Leaders always run to the next tab stop, so they’re self-adjusting. The program will insert and space the correct number of dots, hyphens, or whatever leader character you choose. In **WriteNow 4** and **MacWritePro** , you can use any character or symbol you like. **Word** restricts you to dots, dashes, or a solid line.

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Leading

See
Printing Terms

Left Arrow Key

Using the Left Arrow key enables you to navigate through an open document by moving the cursor to the left one character at a time. You can **select** the character to the left of the **cursor's** insertion point in a document by pressing Shift-Left Arrow key, or you can select the entire word to the left of the cursor's insertion point by pressing Shift-⌘-Left Arrow key.

In a window set to **View by Icon** , you can select the icon to the left of the selected icon by pressing the Left Arrow key.

If, for example, you're in a window displayed in a **Icon view** , you can **click** a **file** and use the Left Arrow key to select any icons to the left of the current selection. The Left Arrow key can also be used in an application to move your insertion point to the left without using the **mouse** .

There are a number of Modifier keys you can use with the arrow keys. Here's a table of the most common keystrokes using the Arrow keys.

Arrow Keystrokes

Sequence	*Result*

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⌘-Left Arrow	Collapses Expanded Folder
⌘-Down Arrow	Open Folder/Open Next File
⌘-Right Arrow	Expand Folder
⌘-Up Arrow	Go to Previous Folder
⌘-Option-Up Arrow	Close to Previous Window
⌘-Shift-Up Arrow	In Open/Save Dialog it Selects Desktop
⌘-Option-Left Arrow	Collapses All Expanded Folders
⌘-Option-Right Arrow	Expands All Nested Folders
Shift-Right Arrow	Selects Character to the Right of Text Cursor
Shift-Left Arrow	Selects Character to the Left of Text Cursor
Shift-⌘-Right Arrow	Selects Word to the Right of Text Cursor
Shift-⌘-Left Arrow	Selects Word to the Left of Text Cursor

See Also

Click; Cursor; File; I-Beam Cursor; Insertion Point; Mouse; Select; Views

L

Lemmings

Although many of Apple's early Macintosh commercials were memorable, they were not all effective. One year after its critically acclaimed and fabulously successful "**1984**" commercial, Apple had a famous dud: "Lemmings."

The Lemmings commercial drew upon many of the same themes as the 1984 commercial: freedom versus authority; creativity versus bureaucracy. But "Lemmings" committed a mortal sin in advertising: it offended its target audience.

"Lemmings" showed a line of business people wearing suits, marching along blindfolded and singing a dirge. One by one, like lemmings, they toppled off a cliff. Finally, the last in the line stopped just short of the cliff and removed his blindfold, asking, "Why am I doing this?" The ad tried to convey the mentality of business: that most executives don't think about many decisions, but rather follow what "everybody else" does. It was a plea to be creative, think for yourself, and buy a Macintosh.

Like the "1984" commercial, "Lemmings" was shown during the Super Bowl. But unlike the optimistic message of "1984," this commercial showed business people plunging off a cliff to their death (or at least into the unknown). It was downbeat and could easily be construed as offensive to the very people it was trying to appeal to.

The decision to run the ad was a difficult one for Apple, one it would not soon

forget. Many outside observers took the commercial as an indication that Apple was out of control and out of touch.

See Also
1984; Sculley, John; Jobs, Steve

Let's Keep It Simple Spreadsheet

Casady & Greene's Let's Keep It Simple Spreadsheet (KISS) looks more like a Tinkertoy than the **spreadsheet** it really is. Instead of arranging data and **formulas** on a grid, users create data objects—simple lists of numbers for input or display—and then wire them together through mathematical operations and **functions**. This eliminates a lot of the problems beginners encounter when using traditional spreadsheets: keeping track of whether **cells** have data or formulas, finding space for new data, and presenting a multidimensional relationship on a two-dimensional grid.

The figure shows a KISS document under construction. Objects and operators are **dragged** onto the page from **palettes** on the left, and connected by dragging a line between them. Attributes of how they'll look or process things are dragged from some 20 other palettes: the common ones are displayed along the top, and others can be invoked from menus.

It looks simple, but can get powerful very quickly. Groups of objects can be *crunched* into a single small operator, essentially creating an editable user-defined **function**. These can be dragged onto custom palettes and re-used

elsewhere. Entire spreadsheets can be crunched and linked, so a complete small business system can be built without ever having to consult a programming manual.

Spreadsheets can be displayed as multiple *reports* for different purposes, with only the relevant objects (and none of the connections) on each. Layout, text, and graphics may be different on each report, and automatically-updating graphs can be added. Data can be entered from reports, so that casual users never need to see the underlying structure.

Because the program doesn't use a traditional **row** and **column** structure, it can't import or export data in standard spreadsheet formats. It can, however, import a file into an object, which can then be connected to other objects. While it lacks some features of a full-blown program like **Excel**, that's not surprising in something with a $130 street price.

KISS breaks a lot of conventions, but does anything you'd expect of a mid-level spreadsheet with none of the rigid structure. The program was introduced in mid-1996 and shows some of the roughness of a first-version release, so only time will tell whether users can be convinced to let go of their grids. If they do, it may prove as revolutionary as **HyperCard** was to databases, and you'll soon see active discussions on the newsgroups and libraries of user add-ons in the usual **shareware** sources.

See Also
Formulas; Functions; HyperCard; Spreadsheets

L

Letter Spacing

See
Tracking

Letterpress

See
Printing Methods, Traditional

LetterWorks

Letter writing is a dying art, what with phones, voice mail, and cryptic email messages. Although there's often no substitute for the written word, many people have trouble expressing themselves on paper, and that's why LetterWorks is so successful. These are collections of pre-written letters on a disk, in a text-only format that works with any word processor. There are seven volumes in the series, each consisting of a disk and a reference book. The book contains the text of all the letters on the disk.

LetterWorks topics include business, personal, and sales letters, and legal, personnel, professional, and consulting forms. These can, and should, be customized to fit your needs and situation, but serve as a basis for your own thoughts and ideas. Personal and business letters make it easier to say what

you want to say, whether it's collecting an overdue bill, telling an employee that he's not meeting your expectations, or expressing sympathy for the loss of a pet or family member. There are personal letters to fit almost any situation you can imagine, from, "Sorry I burned a hole in your sofa," to, "Explain the charges on my bill," to, "Will you marry me?" There are invitations and congratulations and thank you's and even a few "how dare you's."

More useful, perhaps, is the Legal LetterWorks. This collection of 165 legal forms includes leases, wills, partnership agreements, power of attorney, copyright and trademark forms, and all the documents you need to start, buy, or sell a business, operate a corporation, and borrow money. Most important, there's an explanation along with the boilerplate that clarifies what you need to do to fill in the blanks. This alone could save you thousands of dollars in legal bills.

The consulting and personnel volumes are identified as ReadyWorks, because their focus is less on correspondence and more on the kinds of forms, reports, and other documents you need to deal with employees or provide consulting services. The employee package includes valuable tips on interviews, and the kinds of questions you can, and can't, legally ask. There are employee policy statements on everything from attendance and dress codes to employing relatives, jury duty, and sexual harassment. The consulting package includes business plans, proposals, cover letters, brochures, press releases, and requests for credit information and payment. This isn't quite all you need to start your own business, but it's a good

L

beginning.

Ligature

See
Typesetting Terms

Lightningdraw GX

See
Other Drawing Applications

Limiter

A limiter is a sound processor that is similar to a **compressor**, but rather than reduce all signals, it reduces only loud peaks that might distort the sound.

See Also
Compressor, Equalizer; Sound DigitizingLine Screen

See
Halftones

Line Spacing

L

Line spacing refers to the amount of spacing between the lines in a paragraph. Line spacing is the distance, in points, from the top of one line to the top of the next line. It's set automatically for each font, with the distance being 120% of the point size of the type. Thus, a paragraph of12 point type would have the lines set 14 points apart, automatically adding two points of leading.

Typographers express this as 12/14, or "twelve on fourteen." This is done so that the ascenders and descenders don't touch. Double spaced type doesn't double the leading, so it would be 12/26. Most word processors use single spacing as the default, but offer you a choice of 1.5 lines or double spacing as options. Many will let you set precise spacing at increments of 1 point (1/72").

See Also
Leading

Lingo

The scripting language used in **Director** .

See Also
Director; Scripting; XCMDs; XObjects

L

Linker

A linker is a special program that combines various pieces of object code into a finished application.

Most programs are written as a set of separate source code files or modules. These modules usually refer to routines and variables in other modules. When you compile a single file of code, however, there's no way for the **compiler** to know what may be present in another module.

That's where the linker comes into play. After all of the separate modules have been compiled into **object code** , the linker puts all the pieces together by resolving any references (links) from one module to another.

Because the format of the intermediate object code is usually compiler-specific, linkers generally work with just one compiler (or one family of compilers). The Metrowerks **CodeWarrior** linker, for example, cannot link programs compiled with the **Symantec C++** compilers, and vice versa.

Along with matching links between modules, linkers perform plenty of other magic. Most modern linkers can strip out routines (or whole libraries) that are never called, helping reduce the size of the finished application. Linkers also take care of setting up any machine specific entry or exit code needed to make an application run properly.

In traditional development environments, the linker is a separate program that you run after the compiler is done. Integrated Development

Environments (IDEs), on the other hand, include the linker in the IDE. If you use an IDE to develop on the Mac, you might not even notice the linker doing its thing.

See Also
CodeWarrior; Compiler; Object Code; Symantec C++

Links Pro CD for Macintosh

Access Software is currently the leading company in regard to Mac sports games and the only game they offer is golf. However, their Links series and add-on courses is the best game, let alone sports game, series available. The main aspect of computer golf is the same as live golf, timing the swing. Basically, at whatever point you decide to let the swing go on the swing meter directly effects the amount of power that goes into the swing. Links delves into such detailed golf necessities as club selection, driving the ball. Even foot placement and wind-factor are taken into consideration when coordinating a putt.

Access does an incredible job of faithfully recreating world famous courses for the computer. Digitized versions of Harbour Town Links, located in Hilton Head Island, South Carolina and Banff Springs come with the main program. Multiple add-on courses include the Firestone Country Club in Akron, Ohio, Troon North in Scottsdale Arizona and Mauna Kea: Island of Hawaii with more coming every month. Links Pro and its add-ons offer many helpful options

not available from a live course.

You can access animated fly-by views of the holes, as well as overhead shots of the entire course to get perspective. Also, you can replay a shot, allowing you to track balls and to see what you could have done better. Access' reality is due to the amount of care that goes into digitizing the courses. Each hole is filmed from a variety of probable angles and then seamlessly digitized into the rest of the course. The overall feel of Links is realistic with a few digital bonus effects. Links Pro even adds a voice command feature. If your Mac has Apple Speech Recognition, you don't even need to mess with the keyboard to choose clubs and so on.

See Also
PGA Tour Golf III; Sports Games

Lisa

Apple's Lisa computer was the predecessor of the Macintosh. Like the Mac, Lisa featured a built-in bitmapped display, mouse, and graphical interface. In its closing days, it became a part of the Macintosh family, sold under the name Macintosh XL.

In the late 1970s, **Steve Jobs** began pursuing his vision of creating a totally new computer; one that would be as revolutionary and groundbreaking as the Apple II had been in its day. The Apple III project included some significant advancements, but it wasn't what Jobs had in mind.

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During the same period, **Steve Wozniak** was working on creating an entirely new microprocessor for just such a new machine. When it was clear Wozniak wasn't having any success, Jobs took another approach. He hired two engineering managers from Hewlett-Packard to help realize his vision. John Couch would work on the software whereas Ken Rothmueller would lead the new Lisa project.

Initially, the Lisa was designed to be a rather conventional computer for its day. It was to be a departure from the Apple II, but not particularly groundbreaking. It was to retail for about $2000 and ship in 1981. By the end of 1979, Rothmueller's Lisa team had created a prototype of just such a machine. The computer used Motorola's hot new 68000 microprocessor, but wasn't the sort of exciting machine Jobs envisioned.

Meanwhile, Couch's software group had been doing some very interesting work with computer graphics and bitmapped displays. At the center of this work was **Bill Atkinson** . Atkinson had created a core set of drawing and graphics routines that he called LisaGraf. Eventually, these routines would grow into QuickDraw, the graphics portion of the Macintosh **Toolbox**.

During this period, Atkinson and his friend and former professor **Jef Raskin** tried to convince Steve Jobs to take a look at the work that was going on at Xerox's Palo Alto Research Center (**Xerox PARC**). By late 1979, Jobs was convinced, and in exchange for the opportunity to buy 100,000 shares of Apple stock, Xerox allowed Apple two visits to PARC.

Jobs, and the rest of the visitors, were immediately impressed—and excited—by

what they saw. The Xerox Alto was unlike any computer they had ever seen. It featured a high-resolution bitmapped display and a strange new input device known as a **mouse**. Users interacted with the computer directly by pointing at objects on-screen. It was revolutionary—just what Jobs had been looking for.

Almost immediately, the direction of the Lisa project changed. It would now be a scaled-down version of the Alto, with plenty of Apple's own ingenuity added as well. By March 1980, a vision of the new Lisa had emerged. Convinced that it would be impossible to create the new machine at the target price of $2000, Rothmueller was fired for being uncooperative.

Shortly thereafter, Jobs was removed from his role as a leader of the Lisa project by **Mike Scott** . Lisa had become Apple's most important project, and Scott felt they could not jeopardize its success by having Jobs involved. Instead, Scott put Couch in charge of the Lisa. Angry and hurt, Jobs turned his energies to the Macintosh project that had been shaping up under the direction of Jef Raskin.

The Lisa project continued at its slow pace in part because of the major advances the team was making to the interface. Many of the concepts that are fundamental to today's graphical interfaces were created by the Lisa team, including the menu bar with pull-down menus and the Clipboard to move information from one application to another.

Lisa was introduced on January 19, 1983, after Apple had spent $50 million on development. The original Lisa featured a built-in monitor, a full megabyte

of RAM, two notoriously unreliably disk drives, a detachable keyboard, and a 5MB hard disk. It was bundled with a suite of seven applications that covered virtually everything a business user might need to do. What's more, Lisa could run more than one of the programs at the same time. Unfortunately, Lisa also had a very steep price tag—just under $10,000.

At $10,000, the Lisa was in many ways the first workstation rather than the next generation personal computer. As a result, Apple ended up competing less with their usual competitors—Commodore, Radio Shack, and so on—and more with the larger computer companies who made minicomputers. It was a market in which Apple had no experience selling.

The Lisa never quite got off the ground. Initial sales were weak, and even after Apple unbundled the software and lowered the price, sales picked up only slowly. A significant part of the problem were the rumors circling the computer industry about a cheaper computer with all of Lisa's features that would be available just around the corner: the Macintosh.

Despite improvements made in the second generation Lisa, the Lisa 2, sales failed to show much improvement. Before it was finally discontinued in April 1985, the Lisa 2 had one last hurrah as the Macintosh XL. The XL was actually a renamed Lisa 2/10 with a software package called MacWorks that enabled it to run Macintosh software.

See Also

Apple Computer, history; Atkinson, Bill; Jobs, Steve; Macintosh, history; Raskin, Jef; Scott, Mike; Toolbox; Wozniak, Steve; Xerox PARC

L

List Disk (Keyboard Shortcut)

To list the available **disks** in an **Open** or **Save** dialog box, use the keyboard shortcut ⌘-D, which displays all the disks available at the desktop level. The keyboard shortcut Shift-Option- (the apostrophe key) selects the disk at the top of the list.

See Also
Desktop; Disks; Dialog Box; Keyboard Shortcuts; Open; Save

List Previous Disk (Keyboard Shortcut)

If you're in an **Open** or **Save** dialog box, you can select the previous **disk**, by using the keyboard shortcut ⌘-Right Arrow. This chooses the previous disk (based on the order it appears on your desktop) and cycles through its contents. Pressing ⌘-Left Arrow will toggle back in the opposite direction.

See Also
Dialog Box; Keyboard Shortcuts; Open; Save

List View Date Format

When you view the contents of a **window** in a **list view** (view by name, size, kind, or date), you can choose which format you want the file's **modified**

date displayed in by using the **Date and Time Control Panel** . When you open the control panel, click the Date Formats button to reveal the Date **dialog box** . The default is to have the day/month/year format, but you can choose any format you want from a series of **pop-up menus** and checkboxes in the dialog box. If, for example, you prefer to have the year appear first, and the day and month second and third, respectively, you can select this option from the pop-up menu. Windows displayed in the List View now show the last modified date by year, day, month.

To change the list view date format, follow these steps:

1. Choose the Date & Time Control Panel from the Control Panels subfolder on the Apple menu.
2. Click the Date Formats button.
3. Choose your preference for date formats from the pop-up menus and checkboxes in the dialog box, and close the control panel when your choices are complete.

See Also
Date and Time Control Panel; Dialog Box; List View; Modified Date; Pop-Up Menus; Window

Listing Windows with Small Icons

To get windows to list files by size, or another view option, and still view them

by small icon, select a window and choose by Size from the **View menu** . Then choose by Small Icon from the View menu. Press down the Option key and select Clean up by Size from the **Special menu** .

See Also
Special Menu; View Menu

LISTSERV

LISTSERV is computer software that is used to set up and maintain mailing lists on the **Internet** and automatically add and subtract subscribers to those lists.

LISTSERV is the name of common software found on IBM mainframes (which explains the capital letters). The name has come to represent all automated mailing lists, although other packages, such as ListSTAR by StarNine Technologies, exist for the Macintosh.

Every LISTSERV has at least two **email** addresses associated with it: the address for the LISTSERV itself, an the address for the mailing list. The LISTSERV address handles subscriptions, requests to unsubscribe, and can answer questions if the user has set up an automated help file. The mailing list address receives the messages that subscribers send back and forth.

To subscribe to the TidBITS mailing list, which presents regular information about Macintosh hardware and software, you send email to

listserv@ricevm1.rice.edu. The contents of the message should assume a standard format that the LISTSERV will recognize:

SUBSCRIBE TIDBITS [*your full name, at least two words*]

The LISTSERV will return an email message confirming your subscription and providing general information about the list you have joined (it's a good idea to save this list when it comes time to unsubscribe). After you have been on a list for some time, the LISTSERV may ask you to confirm your subscription.

See Also
Electronic Mail; Netscape; Eudora; Internet; Mailing List; POP3; QuickMail; SMTP; Web Server; WebSTAR; World Wide Web

Literature on CD

See
Hypertext Fiction

Little Kidmusic, A

Many programs try to teach music with nonmusical games: learners click notes to shoot targets or battle monsters. A Little Kidmusic is more focused, organized around standard notation and solfege (see the following figure),

and the music becomes its own reward. The computer serves a patient accompanist as well as coach, and points are earned and immediately displayed for good musicianship.

Kidmusic uses real notation to teach musical principles for many ages:

- Preschoolers can listen to familiar songs for entertainment, and then play them with full harmonies by tapping the rhythm.
- More advanced students—up through junior high—hear spoken hints about unusual key signatures or rhythmic nuances and are asked to play (or, with additional software, sing) the music on- screen.
- Students at any level can record and then play back and see with proper notation their own songs.

In each case the program provides rhythmic and harmonically correct background: in a sense, it plays the “left hand” while the you play the melody. It even waits and vamps when a student plays a wrong note, waiting until it hears the right one. A **MIDI** synthesizer or department-store keyboard is helpful, but not required. For kids who are serious about their music, this is the way to go.

See Also
Julliard Music

L

Live Actors in Games

See
The Daedelus Encounter, Foul Play, Hell, Hollywood Connectio, Return to Zork, The Riddle of Master Lu, Wing Commander III

Live Picture

For working with large **bitmapped images** (more than 50MB), Live Picture offers many of the functions of **Photoshop** , with great increases in speed.

The Functional Interpolating Transformation System (FITS) rapidly processes edits (retouching, colorizing, distortion, compositing, lighting, feathering, and blending) and saves them in a separate file from the image data, while Live Picture's proprietary IVUE file format only loads into RAM the portion of the image that the user views at any given time. These innovations speed up work in Live Picture, because there's no waiting while the software applies edits the whole image. Also, the program doesn't require the huge amounts of RAM that Photoshop can—it will work with only 18MB.

Clone, colorize, airbrush, paint, dodge, and burn tools are available, and their size is unlimited. There are also sharpen/blur, smudge, blend, and shimmer tools. Live Picture supports **vector-based** paths for masks and clipping paths, with its own path tools, automatic silhouetting, and the ability to import paths from **Freehand** , **Illustrator** , and Photoshop.

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Colors are calculated in 48 bits, rather than 24 or 32 as with other programs, so there's no banding in blends and no color "artifacts." While Live Picture's native IVUE format is **RGB**, the program offers a Pantone color selector, as well as tools for checking and correcting **CMYK** values within an image. Adaptive separation generates and calibrates separation tables to maintain original CMYK values on output, and separation controls (including UCR, GCR, and dot gain) can be used during image editing.

Live Picture doesn't support Photoshop **plug-ins**, and it doesn't have as strong a filter set as its competitor. But it does come with a plug-in that lets you import IVUE format files into Photoshop for tweaking. For import and export, it supports IVUE, **TIFF**, Photoshop, **PhotoCD**, **EPS**/**DCS** and Scitex CT.

Workflow in Live Picture is somewhat different from that of more traditional image editors; all changes are shown on screen, but they're saved in a separate file from the image data. Changes are only applied to the entire image later, when the image is rendered to an IVUE file. Here's where the processing time comes in, but Live Picture does allow batch processing for this procedure, so users can render multiple images in one unattended session.

Each effect applied in Live Picture takes place on its own layer; this can be cumbersome, but it allows effects to be altered or undone at any time.

The program's client/server architecture allows multiple users to work on the same file, saving their changes into separate files, and swap the changes without having to swap the entire image file.

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The Live Picture Process

1. A new document is opened.
2. Component graphics are loaded. These should all be FITS files (translated from other image formats).
3. The image is moved into place around its “X point”, or image movement center (which can be repositioned visually or numerically). Double clicking on the X point brings up a numerical dialog for repositioning. The images position, rotation and scale can be altered by using numeric input areas at the top of the screen, and the image can be cropped numerically or visually.
4. The Mode tool is clicked to bring the ToolBox to the creative tools mode. The preset colors translate the image to whatever palettes are desired. Preview displays accompany all palette changes, and numerical controllers allow for finer tuning. Updated previews of all changes are included in the previews in Live Picture’s Layer Stack.
5. Next, additional images are brought in, repositioned, and altered as needed. An interactive gradation box determines the opacity of the chosen graphic. You can manipulate the separate RGB channels of the chosen graphic, adding tints and washes, by moving interactive sliders for each channel. For instance, contrast can be altered by moving a C-Splined curve that represents the contrast of the selected image.

6. A “Build” file is created by accessing the Build menu at different points in the process. This contains DPI and sizing information. Antialiasing and compression can be toggled on in this file. An IVUE file is created that contains the updated image data.

7. Power Tools, including beziers, are included for image creation in Live Picture. Selection tools, including masking stencils (hard and soft edged), can be applied at this point to selected images and Layers. Live Picture allows you to drag and drop image translation elements from one Layer of the composite to another Layer, an appreciated feature. Live Picture’s layering capabilities are far above anything comparable in Photoshop. An array of image distortion effects is also included that allows for the creation of various material-like looks (metal, glass, and so on).

8. When complete, the composited image is saved as an IVUE file, taking as little as one percent of the space on your hard drive that an uncompressed standard bitmap would.

Live Picture’s Secrets Layers created in Live Picture are 48-bit and resolution independent, meaning that they can be resized to any degree and still maintain their information. Gradations and other effects are usually applied in separate layers. Gradation controls are part of the selection box that surrounds an area of interest. Live Picture can also use a special “merge” function to combine different FITS files together into one composite, with each FITS file having its separate layers intact. Separate

merged files can be sandwiched together with each having its own level of transparency. Color correction, with full before and after previews, can be targeted to the image, including Gamma correction, contrast and other adjustments.

Live Picture has a full set of font application tools as well. Using the type dialog, data is automatically written as a path-object to the editing screen. Bezier adjustment of letter paths is made easy by a clear view of all control points. Creations in Live Picture demand a mastery of its Layering features more than anything else, since most added shapes and colors are placed on separate Layers and then finalized. Live Picture's method of incorporating gradient start and end gradient percentages as a part of the selection shape is a stroke of genius, as is its use of an interactive slider to indicate Layer transparency. Between the tutorial documentation and the videotape, the tools and processes of Live Picture can be mastered within hours of opening the box.

See Also
Bitmapped Images; CMYK; DCS; EPS; Freehand; Illustrator; PhotoCD; Photoshop; Plug-Ins; RGB; TIFF; Vector Images

LocalTalk

See
Connectivity, Localtalk Port

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Locked Disk, Using

See
Permanently Locked Disk, Using

Locking a Disk

Locking a **disk** protects the contents from accidental erasure or from having the disk's contents altered in any way. Locking a disk is not a software **command**; you have to lock the disk manually (using your finger or thumbnail) by setting a tab that appears on the back of the disk itself.

You cannot **delete** a file from or copy a file to a locked disk, but you can copy files from a locked disk to your **hard drive** or any other unlocked disk. Disks are locked by moving their sliding tab to the locked position as shown in the figure. The locking/unlocking tab appears on the back of the disk in the top-left corner. When you buy a new disk, it is in the unlocked position. However, when you buy software, the disks are locked so you don't accidentally trash important files.

When a disk is locked, you can see through the opening in the sliding tab. To unlock the disk, simply slide the tab until you cannot see through the tab's opening.

When you open any window on a locked disk, an **icon** of a lock appears in the disk's **info bar** to let you know that the disk is locked. If you move items

around on a disk, they return to their original positions the next time the disk is loaded. If you try to move a file into, or out of, a folder on a locked disk, a **dialog box** appears stating, "This command could not be completed because the disk is locked."

See Also
Delete; Floppy Disk; Hard Drive/Disk; Icon; Info; Locked Files; Window

Locking a File

If you have an important document or file that you do not want **deleted** or edited in any way, you can lock that file to protect it. To lock a file, **click** the **icon** of the file and choose **Get Info** from the **File menu.** In the lower-left corner of the Get Info window is a **check box** to Lock the file as shown in the following figure. To lock the file, click the "Locked" check box and **close** the Get Info window. This protects your disk from being deleted by the **Empty Trash** command or from being edited by anyone else.

If a document you have locked is **launched** , a **dialog box** stating, appears that reads "The document is locked, so you will not be able to save any changes. Do you want to open it anyway?". If you choose to launch your locked document, you can make changes, but you have to save the changed document with a different name by choosing **Save As** from the File menu. This does not alter your original document; it is still locked. If someone tries to delete your locked file by choosing the Empty Trash command, a dialog box

appears stating, "The trash cannot be emptied because it contains locked items." This is your safeguard against anyone accidentally deleting important files. There is, however, a way to empty the trash when it contains a locked document. Pressing the **Option key** while choosing Empty Trash from the **Special menu** deletes any locked files in the trash.

To lock a file, follow these steps:

1. Select the icon of the document you want to lock.
2. Choose Get Info from the File menu.
3. If it is not already checked, click the check box “Locked.”
4. Close the Get Info window. The file is now locked.

See Also
Check Box; Click; Close; Deleted; Dialog Box; Empty Trash; File Menu; Get Info; Icon; Launch; Modifier Keys Option Key; Save As; Special Menu

Lode Runner: The Mad Monks Revenge Online

The latest version of the classic Lode Runner arcade game adds an online element to one of the longest running game series this side of **Zork.**

Originally shareware, Lode Runner, a cross between an **adventure game**

and **arcade** shoot'em-up, sends you scurrying around various levels and platforms in search of color-coded keys and lost treasure. To make things more difficult, you've got to contend with hooded, red monks chasing after you. The premise is similar to that of the arcade classic Pitfall, which featured a man swinging over pits and avoiding alligators, or to more recent video games like Donkey Kong. Sierra Online has added 150 new levels in the new Lode Runner, new traps and tools, as well as the capability to play via a **modem** or **network**. You can team up with another player or compete against each other for the treasure.

Lode Runner features clear, colorful graphics that blow away the earlier versions.As repetitive arcade adventures go, Lode Runner Online is among the best. Other games similar to Lode Runner include Prince of Persia I & II from Brøderbund, now sold bundled together, and Power Pete from **MacPlay**.

See Also
3-D Ultra Pinball; Crystal Crazy; MUDS; Network Games; Online Entertainment; Online Live Games; Prince of Persia; Shareware Games; StarPlay Productions

Lofting

See
Modeling

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Logic Board Upgrade

This form of upgrade is between models with the same case/form-factor. For example, the Mac IIx could be upgraded to a IIfx by replacing the logic board. Another, more current, Logic Board Upgrade is the Quadra 800 to PowerMac 8x00.

See Also
Upgrade Paths

Logical Address

If your network consists of only two devices, a Mac and a printer for example, you don't need to think about addressing. There's only one place for data to go. It can't easily get lost. But when you add on more devices, you complicate matters. You can't send data out into a network to wander. You need to have a way to tell it where to go. The way is to assign addresses. Each node has a number. The Node number is within the range of 0-255.

If you have fewer than 255 devices or nodes, you won't run out of numbers. But large office, schools, and other businesses may have many more nodes. So the nodes are grouped into networks. Each network can have 256 devices, and the networks can be joined by routers so that devices on one communicate with devices on another. Every logical connection or transaction within a network also has a socket number. The logical address combines the node

number, network number and socket number to define exactly where a data transaction is taking place. For example, Macintosh Node number 32, on network 100, is communicating over socket 164 to Laser Printer Node number 17, also on network 100, at socket 183.

Logical Journey of the Zoombinis

An innovative program from Brøderbund to teach mathematical thinking and reasoning skills, by solving sets of puzzles. Students must move groups of little creatures called Zoombinis across an island to their new homeland, passing through the Allergic Cliffs, the Stone Cold Cave, past the Pizza Trolls, crossing the Bayou on Captain Cajun's swamp boat, and lots more strange scenes (twelve in all). At each stop along the way, the student must apply logic and analysis to the situation. At the Allergic Cliffs, two stone gods guard the rope bridges. Each of them is allergic to certain Zoombini features. Whenever they sneeze, one of the pegs holding up the bridge flies off. The player's task is to determine what makes one bridge guard sneeze, and send the creatures with that characteristic across the other bridge. After six sneezes, the bridge falls down. At Pizza Pass, the player must provide the troll with a pizza he likes. Then, he'll let the Zoombinis cross. But he's a very picky eater.

Each puzzle requires several different math and logic skills. All of them require an ability to match and compare attributes and combinations. Some, like the pizza problem, require organizing data and eliminating the

unacceptable choices. Others, particularly the swamp ferry, demand that data be organized in sets. Each Zoombini must take a seat on the ferry next to a Zoombini with a shared characteristic. There are several levels of difficulty in each puzzle, and the program is structured so that the student must complete all the levels in order to complete the colonization of the new Zoombini homeland. The program is rated for ages 8-12, but older kids will also enjoy it , and parents might find many of the problems difficult. It's challenging and fun. What more could anyone ask of educational software?

See Also
Math Workshop

Logical Volumes

You partition your **hard disk** into two or more segments using **Apple's HD SC Setup** utility. These partitions (or logical volumes) show up on the **desktop** as separate hard drive icons, even though they are segments of the same hard drive.

You may want to create these partitions for a variety of reasons:

- Security, (you can password protect an entire partition), which is especially useful if other people use your computer.
- To keep files created by other people who use your computer separate from yours.

- For files that need to be **backed up.**
- For archived customer files or seldom-used letters you don't want to retrieve from a **disk**.

One of the main reasons people partition their hard drive is for increased speed. This means they're working on one portion of their drive at any one time. The hard drive should be able to read, write, and retrieve files faster because there's less space to search and less movement of the hard drive's heads. Each time the drive's heads have to move, it takes time and slows the speed that information is processed. Less movement means quicker response time.

See Also
Apple HD SC Setup; Backing Up; Desktop; Disks; Hard Drive

Logo

See
Apple Logo

Logo Typefaces

See
Typefaces

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LogoMotion

Specular LogoMotion takes its interface cue from Specular International's flagship animation software, **Infini-D.** If you have any experience with Infini-D, mastering the necessary learning curves in LogoMotion should be no problem. LogoMotion allows you to produce very high quality renderings and animations of text objects for **DTP**, broadcast video and multimedia uses. A pull-down menu at the left of the screen displays LogoMotion's six design categories: Object Info, Surfaces, Bevels, Atmosphere, Stagehands, and Rendering. As each of these categories is chosen, the top menu bar changes to display sub-categories of selectable options.

Object Info Camera, Object and Light are the three basic targets of the Object Info category. Each is associated with configurable inputs that change the way that these items behave in a scene. As new objects are added to the scene, they are listed in the Info column and can changed via user numeric input. Surface properties and shadows can be targeted to objects, camera position and rotation can be altered, and Light positions can be changed.

Surfaces Surface textures in LogoMotion, selectable from a list of options, can be changed according to the following parameters: Color map, Diffusion, Hilite, Metalicity, and Reflection. In addition, user graphics can be applied as a texture. Textures are targeted to objects in the display list, and once applied are rendered to the screen (as long as this is the user's choice as opposed to seeing the object in wireframe mode). The LogoMotion library of default textures can be altered endlessly until the best texture for the situation is

achieved.

Bevels Every application in LogoMotion is highly real-time mouse interactive, so that changing a parameter can be instantly reflected in a new rendering of the scene. The beveling function, applying a routed indentation to a text object, is the best case in point. The angle of the bevel can be altered by a pull down menu display of the present beveled shape, and back beveling can be toggled on or off. The width and height of the bevel can be altered numerically and default bevels can be selected from a list of options.

Atmosphere This selection refers to environment mapping, the capacity of an object to reflect its surroundings. LogoMotion allows you to change both the colorization of the atmosphere and its “fog” quality.

Stagehands This category is devoted to incorporating preset animation scripts to the scene and also to reconfiguring backdrops. Each choice is reflected in a small visual display on the interface. Stagehands add animated objects to a scene without disturbing the objects placed there by the user. A camera Stagehand list also adds preset camera motions to an animation. Stagehands are invaluable for creating flying logo animations.

Rendering Rendering options include quality (wireframe to “best”), anti-aliasing, shadows on or off and window setting sizes. File saves include PICT, compressed PICT, Pic, Tiff and QuickTime movie.

Other Features Swivel 3d or DXF 3D models can be added to a LogoMotion

scene and texturized. LogoMotion has only two primitive 3D objects aside from a 3D text dialog, a cube and a sphere. This is more than adequate because other objects in the Swivel or DXF format can always add interest to a scene.

Long-Document Management

Desktop publishers work with all kinds of projects, ranging in size from business cards to 1000-page textbooks. While software publishers seem intent on making their products all things to all people, different projects call for different feature sets. The features that are most useful to those producing books and other longer documents are called long-document management tools.

This group of features includes indexing, table-of-contents creation, cross-referencing, footnoting, and the ability to group chapter files together into a book and make changes to all chapters at once. Some of these features are built into page layout packages and word processors, while others are available as add-on software.

Often used for its word-processor features, **FrameMaker** is a page-layout package that has many long-document management features. It allows for the insertion of several different types of invisible markers which it later catalogs and lists as indexes and footnotes. It can also keep track of cross-references—references to text elsewhere in a book—and update page or section numbers as the pagination in a book changes.

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Keeping chapter files grouped into a book is a feature that both FrameMaker and **PageMaker** offer; it allows page numbering to be updated automatically and specifies which documents to search when creating indexes and tables of contents. FrameMaker also allows paragraph styles and master pages to be applied to all documents in a book at once.

PageMaker also offers marker-driven indexing and a table-of-contents feature that, like FrameMaker's, scans documents for specific paragraph styles to be included. For example, a table of contents might include all part titles, chapter titles, and first-level headers.

In version 3, **QuarkXPress** doesn't have long-document management tools. But several of these tools are available via **XTensions**, such as Sonar Bookends (indexing, using a word list rather than markers) and Sonar TOC (table of contents generation). Version 4 of QuarkXPress, due out in 1996, is slated to incorporate these features.

See Also
FrameMaker; PageMaker; QuarkXPress; Xtensions

Loony Labyrinth

See
Pinball Games

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Lotus 1-2-3

1-2-3 is the most popular **spreadsheet** in the Windows world, so Lotus Development developed their Macintosh version both to satisfy cross-platform users and capture market share from Microsoft **Excel**. Unfortunately, the latter never happened, and Lotus saw no reason to invest in additional development. As this book went to press, the most recent version of the program was almost four years old and is no longer even listed on the Lotus **Web page**.

It's definitely showing its age. **Functions** and data-viewing options are severely limited compared to Excel, and features that are considered necessary today—like online help and automated dialogs to guide you through operations—don't even match the spreadsheet module in low-cost **ClarisWorks**.

If you regularly run spreadsheets on Windows and insist on having the same program in your Mac, you might still be able to get 1-2-3's Macintosh version from Lotus. But if you can't, don't worry. Files are compatible between it and Excel, both programs contain hints for users of the other, and the Microsoft program is a lot more powerful. For most purposes, this 1-2-3 is down for the count.

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Loudspeakers

See
Speakers

Louis Cat Orze: The Mystery of the Queen's Necklace

See
Adventure Games

LPI

See
Halftones

Luminance

See
Glow

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Lycos

The name of this **Internet search engine** comes from the arachnid family *Lycosidae*. Lycos was developed and is owned by Dr. Michael L. Mauldin of Carnegie-Mellon University. Lycos searches are built around keywords. It searches **HTTP**, **FTP**, and **Gopher** sites. As of May 1, 1995, its database included 3.75 million link descriptions and keywords from 767,000 documents. It tells you when a site was last updated and the information about file size gives you an idea of how long it will take to load on-screen.

The home page for Lycos is http://www.lycos.com/.

See Also
Search Engine; World Wide Web, Searching

LQ ImageWriter Extension

This extension is a printer driver necessary to **print** to an Apple **ImageWriter** LQ dot-matrix printer. The LQ ImageWriter extension is accessed through the **Chooser** on the **Apple menu** .

See Also
Apple Menu; Chooser; ImageWriter; Print