

There are a number of techniques to choose from when making selections and editing items in Logic Pro. In this chapter, you'll learn about basic operating, selection, and editing techniques, as well as a number of shortcuts and features that help to accelerate your workflow.

This chapter covers the following:

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Using the Mouse

Mouse use in Logic Pro differs from mouse use in other applications.

Clicking

Place the mouse pointer on the element (region, event, button, menu, input field, and so on) and press the mouse button once.

Double-Clicking

The same as clicking an element, but you press the mouse button twice—in quick succession. You can set a suitable interval between clicks in the System Preferences (Keyboard & Mouse pane).

Grabbing or Clicking and Holding

The same as clicking an element, but you keep the mouse button held down.

Moving or Dragging

Grab the element and move the mouse (keeping the mouse button held down) to the desired position.

Right-Clicking

The same as clicking, but you press the *right* mouse button, if available. This opens a shortcut menu, the Tool menu, or selects an assigned tool.

Modifier-Clicking or Dragging

Many commands, functions, additional tools, or finer adjustments are accessed by holding down a modifier key—Control, Shift, Option, or Command—while clicking or dragging. For example, Option-dragging a region copies it. Option-clicking a fader or knob resets it to its default, or centered, value.

Mouse Wheel Events

You can use the mouse wheel to scroll vertically in Logic Pro. There are also some modifiers supported:

- If you press Command, the mouse wheel scrolls horizontally.
- If you press Option, the mouse wheel zooms in or out vertically.
- If you press Option-Command, the mouse wheel zooms in or out horizontally.
- If you press Option-Control, the mouse wheel zooms in or out in both directions.

Note: Logic Pro also supports mice that feature an x and y axis on one scroll wheel (such as the Apple Mighty Mouse). On a 2-axis mouse, the Command modifier (that switches a single-axis mouse between horizontal and vertical orientation) is not used.

Mouse as a Slider

You can set most numerical parameters (even note values or names) by grabbing the parameter value, and moving the mouse up or down. If the parameter consists of several separate numbers (project position, for example), you can adjust each number individually using this method.

Entering Numerical Values

You can use numerical input in many areas of Logic Pro. Double-clicking a numerical parameter value opens an input field. The existing value is highlighted, and ready to be overwritten by a new entry. This method is ideal for quickly setting a parameter value in the Inspector, or instantly navigating to a bar, when used in the Transport bar.

To quickly navigate to a bar, using numerical input in the Transport bar

- 1 Double-click the Position display in the Transport bar.

- 2 Type in 45, followed by the Return key.



The playhead moves to the beginning of bar 45.

You can also use the mouse to make a partial selection in an input field, so that only the highlighted part is overwritten. As long as the input field is open, the computer keyboard can only be used for data entry, and cannot be used for key commands (with the exception of the main menu functions).

Discrete Values

Using numerical input, you can type in:

- *Decimals:* 1, 01, 2, 3, 4, 127, ...
- *Hexadecimals:* \$1, \$01, \$2, \$3, \$A, \$0A, \$7F
- *Notes:* "C3," "C#3," "Cb3," "C##2" (equivalent to D2), "Dbb2" (equivalent to C2). If you double-click the note "E3," you can enter a decimal value such as "64" or a hex value of "\$40" instead of the note name.
- *ASCII Code:* You can also input numbers as ASCII code: just place a ` or " in front of the selected key, and the ASCII code is input as a number. For example, "! results in a value of 33; "a results in a value of 97. This function is particularly useful for entering text in SysEx strings.

Arithmetical Operations

In many parts of Logic Pro, mathematical operations can also be used to change values. For example:

- You can subtract from the existing value by entering "-5."
- You can sum two values by entering "38+17."
- You can multiply two values by entering "7*8."
- You can divide two values by entering "80/5."

Canceling Numerical Input

You can cancel numerical input by entering no text at all, and pressing the Return key.

Entering Text

You can input text names in the same way as numbers, but you only need to click a name field once to allow input. You can directly click a region (or Mixer channel strip) with the Text tool to rename it.

Any number of selected objects (such as regions) can be assigned the same name. If the name ends with a number, this number is automatically incremented by 1 for each subsequent object. This allows you to quickly, and uniquely, name all of the regions on a track, for example.

Note: To turn off automatic numbering, place a space after the number at the end of the name you type in. All selected objects will then end with the same number. This may be useful for identifying all main vocal regions recorded in another session, for example (rename to “mainvox 030707,” followed by the space, to identify the regions by date).

Working with Key Commands

You can execute nearly every Logic Pro function with a key command or MIDI message. Whenever this documentation mentions a key command, this refers to a function, command, or option that can be accessed by either a computer keyboard keystroke (or keystroke combination—such as Option-R—which opens the Recording project settings) or a MIDI message.

Use of key commands, rather than the mouse, can greatly accelerate your workflow. Throughout this documentation, you will encounter many practical usage examples, often in step form, that include the default key command assignments for particular functions.

Tip: It is recommended that you use these default key commands while getting to know the application. Not only will this help you to remember them, but will also aid in developing good (and faster) working practices from the outset.

Once you have a good understanding of Logic Pro fundamentals, and how you like to work, you can freely assign your own key command set for functions that you use most often.

Note: A number of functions are *only* available as key commands. Some of these may not have a default key command assignment. In such cases, you will need to create a suitable key command, in order to make use of the function.

Getting to Know the Key Commands Window

You will use the Key Commands window to assign Logic Pro functions to computer keyboard keys or MIDI messages. This allows you to completely customize the application to suit your working style.

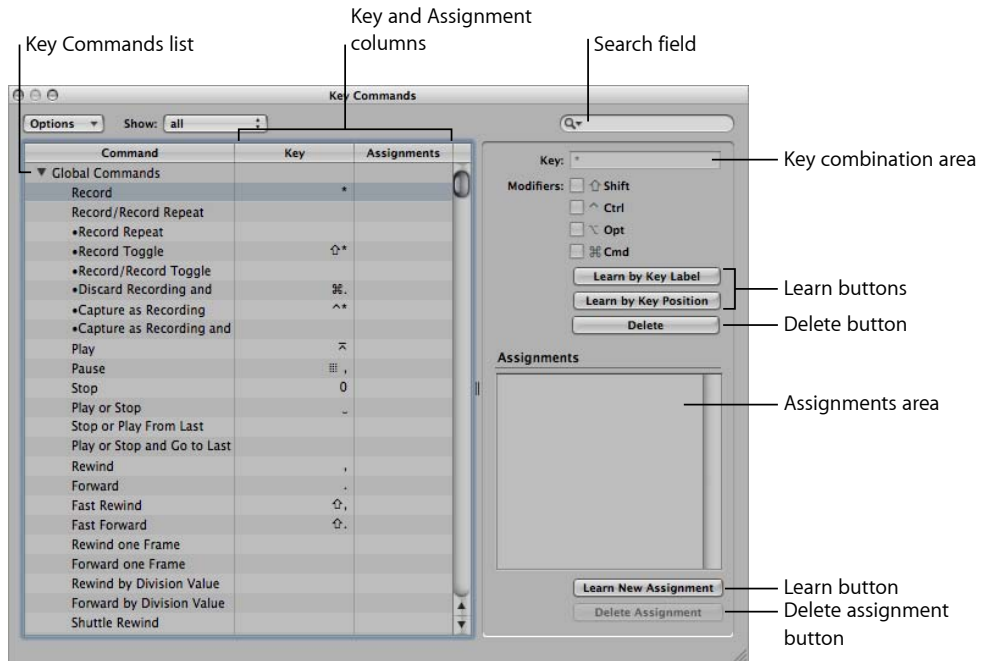
To open the Key Commands window

Do one of the following:

- Choose Logic Pro > Preferences > Key Commands (or use the Open Key Commands key command, default assignment: Option-K).

- Click the Preferences button in the Arrange toolbar, then choose Key Commands from the shortcut menu.

Tip: Holding down Control while choosing a command in a menu opens the Key Commands window, with the respective command selected. This also works with shortcut menus.



- Key Commands list:** Lists all available key commands. The bullet indicates key commands that are not available as menu items.
- Key and Assignment columns:** Show the currently assigned key, and MIDI message (if applicable).
- Search field:** Use this to find key commands by name or partial name.
- Key combination area:** Displays the key combination associated with the selected key command. Note that this area, along with the modifier checkboxes, is always dimmed. These fields are display-only fields and cannot be edited directly. Use the Learn buttons when you need to change a key command assignment.
- Assignments area:** Displays the control surface assignment associated with the selected command.
- Learn buttons:** Use these to teach Logic Pro to use a particular key, or key combination, to perform a function.
- Delete buttons:** Use these to delete the key assignment of the selected command, or to delete the selected assignment.

Understanding Key Command Groups and Hierarchies

The global key commands are always functional, regardless of the currently active window. Non-global commands require the corresponding window to have key focus (in the foreground, or on top of other windows). This allows you to assign the same key command (or combination of keys) to different functions in different windows.

Important: There is a hierarchy of key command classes, which are not merely separated into global and local key commands. For example, there is a key command class that applies to all windows that display regions. This class has higher priority than global key commands, but a lower priority than local window (Arrange, Score, Piano Roll, and so on) key commands.

Choosing Key Command Sets

The Options menu offers commands that allow you to switch between key command sets, or import and export them. This is particularly useful if you need to work temporarily on another user's Logic Pro system; you can use your personal key assignments, without altering the settings of the other system.

- *Options > Preset menu:* Displays all key command sets saved in the ~/Library/Application Support/Logic/Key Commands folder, allowing you to quickly switch between key command sets.
- *Options > Import Key Commands:* Opens a dialog, allowing you to import key command sets from any folder location. The existing file (on the target system) is automatically saved as a *.bak file. This file contains the old key commands. You don't need to restart Logic Pro to begin using the new key command set.
- *Options > Export Key Commands:* Opens a dialog, allowing you to save the current key command assignments to any location. It is important to carry out this command whenever you make changes to your personal key command set. For further details, see *Saving Key Command Sets*.

Saving Key Command Sets

When you save key commands, your user key assignment sets are stored in a separate file located in ~/Library/Application Support/Logic/Key Commands.

To save a key command set

- 1 Choose Options > Export Key Commands in the Key Commands window.

A dialog opens, pointing to the default folder location: ~/Library/Application Support/Logic/Key Commands.

Note: It is also possible to save the key command set to another location by browsing to it.

- 2 Do one of the following:

- *Overwrite an existing key command set:* Select the file, then click the Save button.

- *Save a new key command set:* Enter a new filename in the Save As field, then click the Save button.

Note: All key command sets are available from the Options > Presets menu, if you saved them to the default location.

Saving key commands is also recommended for backup purposes. Following are some recommendations for when you might want to do this:

- Export your user key command set (using the above procedure) whenever you make changes to it. Changes to key commands are *not* automatically saved to the selected key command set.
- Make a backup of your user key command set at another hard disk location *before* changing any key commands.
- Make a backup on removable media (a CD-ROM or USB flash drive, for example), or on a networked Mac (using Bonjour) or a MobileMe account (see [Sharing Logic Pro Data over a Network](#)). These backup options make it easy to transfer your key commands when using Logic Pro on another computer.

Whenever you install Logic Pro updates, your personal key commands remain unaltered.

Note: Almost all key commands are user-definable. Some of the default assignments for standard commands such as Undo, Save, Quit, New, Open, Cut, Copy, and Paste follow Mac OS X conventions, and probably shouldn't be altered. Some keys are "hard-wired" to specific functions or commands, and *cannot* be changed. These are dimmed in the key command listing, to indicate this fixed status.

Browsing Key Commands

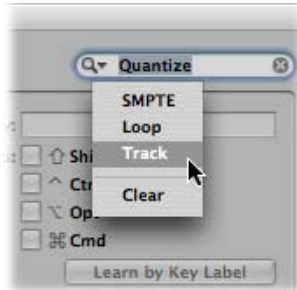
Key commands are grouped in various categories. You can extend or collapse groups by clicking the respective disclosure triangle.

The Options > Expand All command displays the contents all key command groups. Options > Collapse All hides the contents of all key command groups.

When you expand key command groups, your key command selection may no longer be visible. You can quickly return to the selected key command by choosing Options > Scroll to Selection. When the list has key focus, you can use a key command (or key command combination) to select the associated function in the list.

Finding Key Commands

You can use the Key Command window's search field to find key commands by name or partial name:



- The search is performed as you enter text. There is no need to press the Return key, unless you want to retain a history of key command searches.
- The Cancel button to the right (that appears as soon as any text is entered) clears any entered text, and displays all key commands.
- The Search menu to the left (the magnifying glass) retains a history of recently used search terms. The Clear menu item erases the Find history.

Note: The Find history is limited to searches that were completed by pressing the Return key.

Using Special Keys in Key Commands

Some keys have special functions:

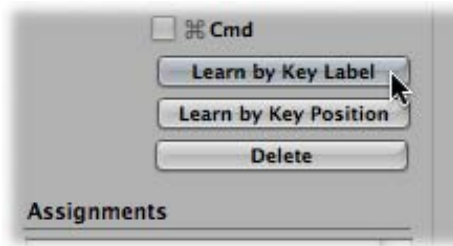
- The Shift, Control, Option, and Command modifier keys can only be used in conjunction with other keys.
- The Delete key has the fixed “delete selected objects” function. It can only be assigned to another function in conjunction with the modifier keys.
- The key combinations assigned to the commands in the main menu bar can be reassigned, but it is generally recommended that you leave them at their defaults. The key command assignment is displayed after the main menu items. For example, Command-1 opens the Arrange window, Shift-L locks the current screenset.
- The Plus and Minus keys are assigned to the Increase/Decrease Last Parameter by 1 key commands. As the name suggests, this will increase or decrease any selected parameter value in single units.
- Using Shift in conjunction with the Plus and Minus keys accesses the Increase/Decrease Last Parameter by 10 key commands.

Assigning Key Commands to Computer Keys

This section shows you how you assign particular computer keyboard keys to Logic Pro functions.

To assign a function to a key

- 1 Select a command in the Command column.



- 2 Click the Learn by Key Label button.
- 3 Press the desired key, along with the desired modifier key or keys (Shift, Control, Option, or Command).
- 4 If you want to make another assignment, repeat steps 1 to 3.
- 5 Click the Learn by Key Label button again.

The Learn by Key Position function works in the same way, but differs in that it's not just a reference to an ASCII code that is stored, but the actual scan code of the key that is pressed.

In practice, this means that you can, for example, assign different commands to the number keys on the numeric keypad and the number keys above the keyboard.

This also means that the key position remains the same if you switch between different operating system language settings, or different keyboards. For example, using a scan code for a function assigned to the Y key on an English keyboard would function in the same way if you switched to a German keyboard—which has a Z key in the same position as the Y key on an English keyboard.

The only disadvantage is that the key code (a number), rather than the ASCII symbol, is displayed in the Key Commands window. The ASCII symbol is more useful for reference purposes.

To clarify the difference between these two functions, here's a short comparison:

- If you use the Learn by Key Label function, and define only one key command for the key, it will be used, no matter which of the two keys (either number 7 key, for example) is pressed.

- If you use the Learn by Key Position function, and define two key commands (one for the alphanumeric keyboard, one for the numeric keypad), then the appropriate key command will be used (one for each number 7 key, for example).

In circumstances where an existing local key command combination is used, when assigning a new global key command, a warning message appears. This warning message explains where the existing local key command combination is used and whether it has a higher or lower priority than the one you are trying to assign. You have the following options:

- *Cancel*: Press this button if you do not want to alter existing assignments.
- *Replace*: Press this button if you want to replace the existing shortcut (assigned to the chosen key command combination) with the selected function.
- *OK*: Press this button if you want to assign the key command combination to the selected function, while retaining the existing key command or function.

To delete key assignments

- 1 Select the relevant command (with a key assignment that you want to delete).
- 2 Do one of the following:
 - Click the Learn by Key Label or Learn by Key Position button, then press Delete.
 - Click the Delete button.

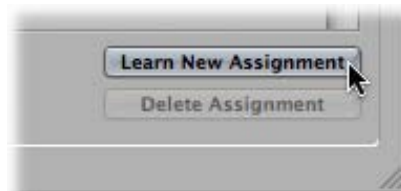
The key assignment of the selected command is deleted.
- 3 To erase more assignments, repeat the first and second steps.
- 4 Click the Learn by Key Label or Learn by Key Position button again (if you activated them).

Assigning Key Commands to Control Surfaces

The Learn New Assignment button allows you to assign control surface messages to particular commands—effectively teaching Logic Pro to understand these messages.

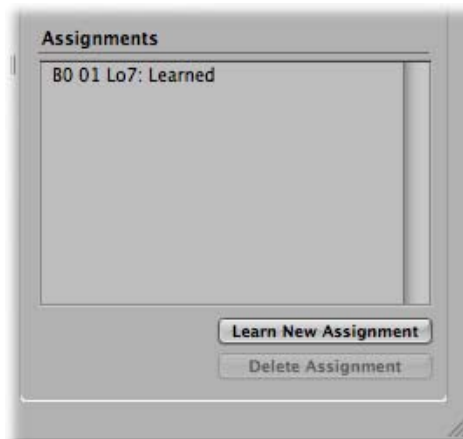
To learn a controller assignment

- 1 Click the Learn New Assignment button.



- 2 Select the command in the Command column.
- 3 Send the desired MIDI message from your controller.

The Assignments field displays the learned assignment. This *may* show one or all of the following:



- The name of the control surface—or the MIDI string, if the assignment is from an unsupported control surface.
- The name of the control.
- The zone and mode that the assignment belongs to, if applicable.

Note: The Learn New Assignment button is automatically turned off when the entire message has been received. This avoids reception of further messages (that may be) sent by the device when you release the button. To ensure reliable reception, hold the button for a short period before releasing it.

- 4 If you want to make another assignment, repeat steps 2 and 3.

If you want to assign functions—other than key commands—to a control surface, you use the Controller Assignments window. Open this window by double-clicking a row in the assignment section, or by choosing Logic Pro > Preferences > Control Surfaces > Learn Assignment for “destination parameter” from the main menu bar (or use the Open Controller Assignments key command, default assignment: Command-K). For details, see the *Logic Pro Control Surfaces Support* manual.

Initializing Key Command Assignments

You can reset all key commands to their default assignments. You will lose your existing key command assignments, so make sure that you have created a copy of your key commands file before doing so.

To initialize all key command assignments

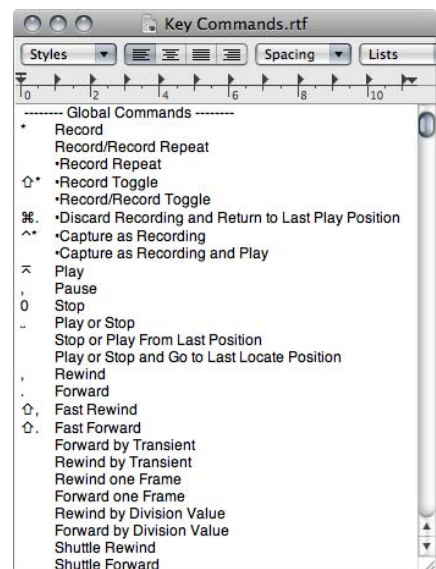
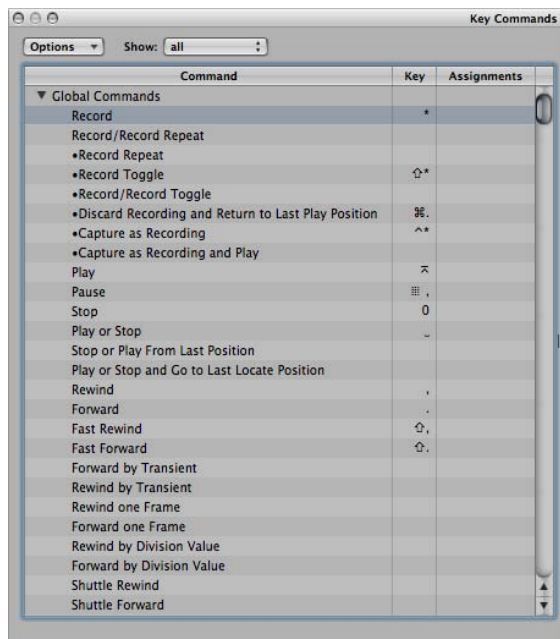
- Choose Options > Initialize all Key Commands in the Key Commands window.

Printing a Key Command List

You can use the Options > Copy Key Commands to Clipboard function to copy your key command assignments into the Clipboard as text. From here, it's a simple matter of pasting the results into any word processor, formatting as desired, and printing them.

The Copy to Clipboard command only copies the currently visible key command assignments. You could, therefore, export a certain group of key commands (those containing a particular character string, for example). What you see in the window display is exactly what's exported.

The Copy to Clipboard command only copies the currently visible key command assignments into the Clipboard.

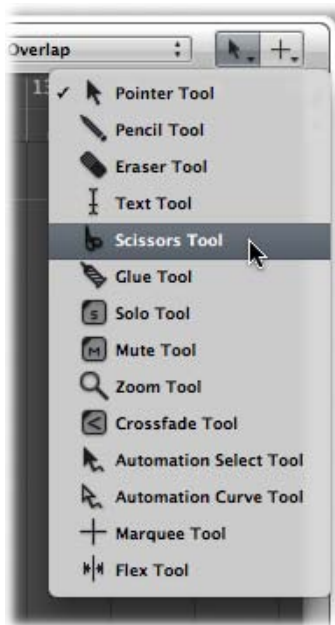


Working with Tools

Each working area in Logic Pro provides its own set of tools, suitable for the tasks performed in that area. Each toolset, therefore, is only effective in the working area in which it is located.

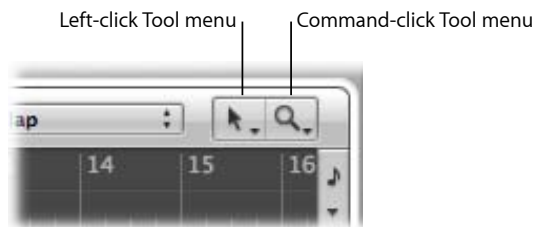
A tool (the Scissors, for example) basically affects the regions or events that you click. If multiple regions are selected, they are all affected by the tool (the Scissors would cut all selected regions at the same playhead position).

Tools are accessed in the Tool menus, found in the upper-right corner of all windows that allow direct region, event, or file editing and handling operations.



Assigning the Left-Click and Command-Click Tools

You can freely assign tools to the Left-click and Command-click Tool menus. The mouse pointer adopts the shape of the active tool, allowing you to instantly identify it by looking at the pointer graphic.



The Command-click Tool menu is located on the right, by default, but is located in the middle when a third (Right-click) tool is assigned. For full details about the Right-click tool, see [Assigning the Right Mouse Button](#).

To assign the Left-click tool

- Click the Left-click Tool menu to open it, then choose a tool.

The Left-click tool is available when the left mouse button is pressed while editing.

To assign the Command-click tool

- Click the Command-click Tool menu, then choose a tool.

The Command-click tool is available when the Command key is pressed while editing. Release the Command key to revert to the Left-click tool.

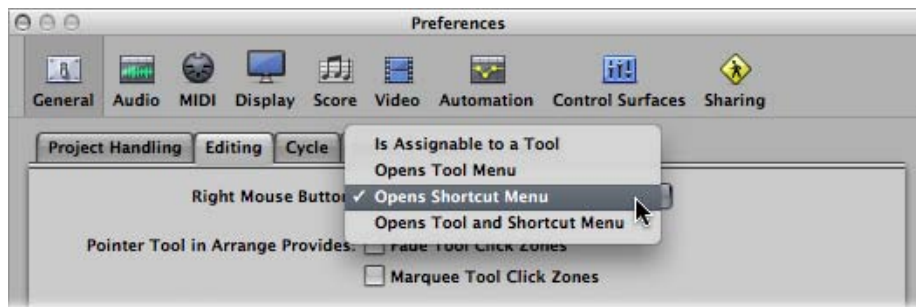
Assigning the Right Mouse Button

If you have a suitable mouse, you can also assign the right mouse button to any of the following:

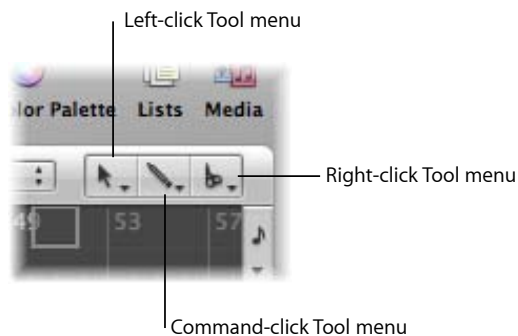
- A third tool (Right-click tool)
- Tool menu
- Shortcut menu (default setting)

To set the behavior of the right mouse button

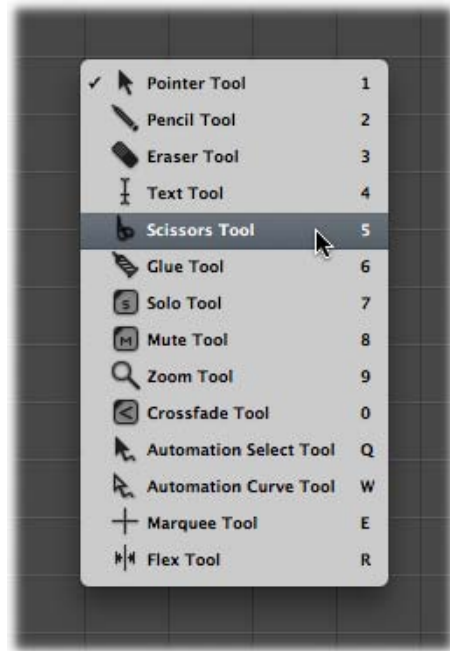
- 1 Open General preferences by doing one of the following:
 - Choose Logic Pro > Preferences > General (or use the corresponding key command).
 - Click the Preferences button in the Arrange toolbar, then choose General from the pop-up menu.
- 2 Click the Editing tab, then choose a setting from the Right Mouse Button pop-up menu.



- *Is Assignable to a Tool*: When this option is chosen, a third Tool menu (Right-click Tool menu) appears to the right of the Left-click and Command-click Tool menus. Choose the appropriate menu item to assign the tool, which is available when the right mouse button is pressed while editing.

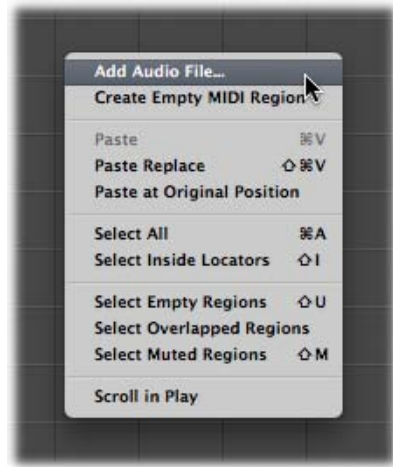


- *Opens Tool Menu:* Right-clicking in the working area of the active window opens the Tool menu with the Pointer tool (and not the currently selected tool) located under the mouse pointer position. Choose a tool by clicking it. When the Tool menu is open, you can also use the key shown next to a tool to select it.



Note: When you choose a tool from the Tool menu by right-clicking, the tool is assigned to the left mouse button. Right-double-clicking in the working area of the active window resets the assigned tool to the Pointer tool.

- *Opens Shortcut Menu:* Right-clicking in the working area of the active window displays a menu that offers a number of area-specific selection and editing commands. See Using the Shortcut Menu for details.



Setting the Pointer Tool Behavior

You can set two different behaviors for the Pointer tool when using it in the Arrange window.

To set the behavior of the Pointer tool in the Arrange window

- 1 Open General preferences by doing one of the following:
 - Choose Logic Pro > Preferences > General (or use the corresponding key command).
 - Click the Preferences button in the Arrange toolbar, then choose General from the pop-up menu.
- 2 Click the Editing tab, then select the checkboxes of the required Pointer Tool in Arrange settings.



- *Fade Tool Click Zones:* When this checkbox is selected, placing the mouse pointer over the upper-left and upper-right edges of a region activates the Fade cursor and behavior. The Loop cursor and behavior can still be accessed in these click zones by holding down Option.

- *Marquee Tool Click Zones*: When this checkbox is selected, placing the mouse pointer over the lower half of a region (with the exception of the lower-left and lower-right edges) activates the Marquee cursor and behavior.

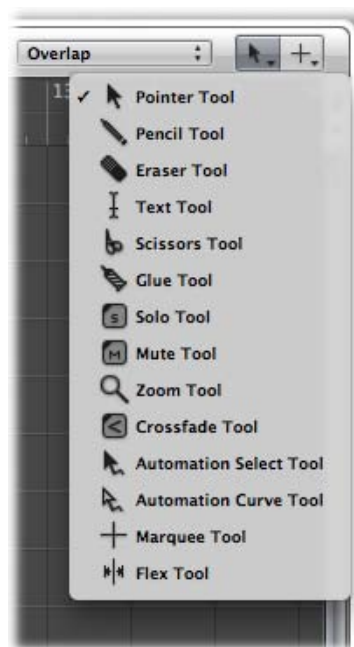
Using Key Commands to Select Tools

You can also use the following key commands to select tools:

- *Set Next Tool and Set Previous Tool*: Switch to the neighboring tool in the active window.
- *Show Tool menu*: Open the Tool menu at the pointer position. When the Tool menu is open, you can also use one of the number keys shown next to a tool to select it (default key command assignment: Esc).
- *Set X tool (where X refers to the tool)*: You can select each tool via a specific key command. Key commands assigned to a specific tool switch between this tool and the previously selected tool.

Learning About Common Tools

The following section describes the most common tools available in Logic Pro. Tools that are specific to particular editing windows are covered in the respective chapters.



Pointer Tool

The Pointer is the default tool when Logic Pro is first opened. The mouse pointer also takes on this shape outside the working area, when making a menu selection or entering a value.

Within the working area, you can use the Pointer tool for:

- Selecting individual or multiple events, regions, or other elements by clicking them. See [Using Selection Techniques](#).
- Moving (by grabbing and dragging).
- Copying (by Option-dragging).
- Changing lengths (by grabbing the bottom-right or bottom-left corner and dragging).
- Looping regions (by grabbing the upper-right corner and dragging).

Pencil Tool

The Pencil tool is used to add new regions or events. You can also select, drag, loop regions, and alter the length of regions or events while the Pencil tool is active.

Eraser Tool

The Eraser tool deletes selected regions or events. When you click a region or event with the Eraser, all of the currently selected regions or events are deleted (as if you had used Delete). The Eraser can also delete an *unselected* region or event by clicking it.

Text Tool

The Text tool is used to name regions, or add text to a musical score.

Scissors Tool

The Scissors tool is used to split regions and events, allowing individual sections to be copied, moved, or deleted.

Glue Tool

The Glue tool performs the reverse operation of the Scissors tool. All selected regions or events are merged into a single region or event.

Solo Tool

Click-holding a region with the Solo tool allows you to listen to the selected region or event in isolation. Moving the mouse horizontally also outputs (scrubs) any events the pointer touches.

Mute Tool

Clicking an event or region with the Mute tool prevents it from playing. You can unmute the region or event by clicking it a second time with the Mute tool. If multiple regions or events are selected, the mute state of the clicked region or event applies to all selected regions or events.

Zoom Tool

The Zoom tool allows you to zoom (up to the full window size) by dragging to select a specific region. You can revert to the normal zoom level by clicking the window background with this tool. You can also access the Zoom function—even when other tools are active—by holding down Control-Option.

Flex Tool

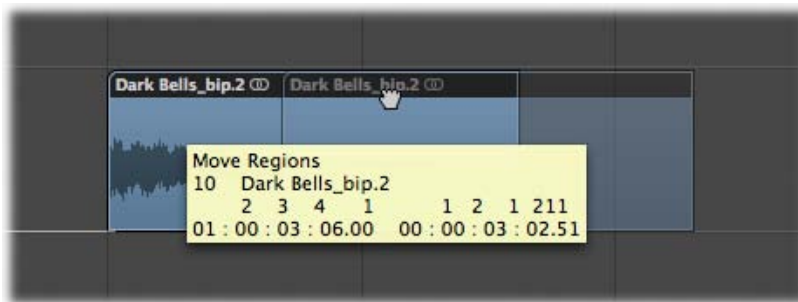
The Flex tool provides you with quick access to fundamental flex editing functionality, without having to turn on Flex view in the Arrange window.

Working with Help Tags

A help tag appears just below the mouse pointer position—for as long as the mouse button is held down—when using many of the tools. The help tag provides useful feedback on the operation you are performing.

Note: You must turn on the Logic Pro > Preferences > Display > General > Show Help Tags option in order to view help tags during edit operations.

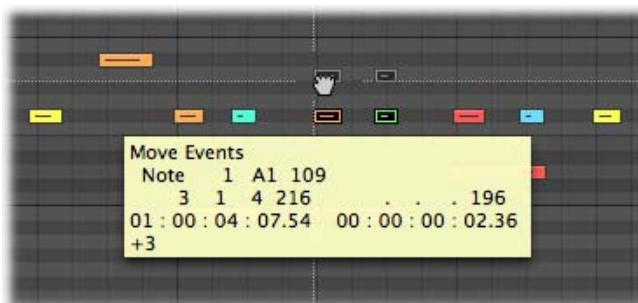
During operations involving regions, the help tag looks something like this:



From left to right (and from top to bottom), the values indicate:

- Name of the operation
- Mouse (or region) position
- Region/event name
- Track number
- Length of the region

During operations involving events, the help tag looks something like this:



From left to right, the values indicate:

- Name of the operation
- Mouse (or event) position
- Event type
- Event MIDI channel
- First data byte (note pitch, for example)
- Second data byte (note velocity, for example)
- Event length (note length, for example)

Using the Shortcut Menu

Control-clicking anywhere in the Arrange window, Piano Roll Editor, and all List Editors, opens a shortcut menu (also known as a *contextual menu*) that can be used for a number of selection and editing tasks.

The shortcut menus differ between (and within) windows, based on both the selection status of events or regions within the window, and also the type of information that the editor deals with.

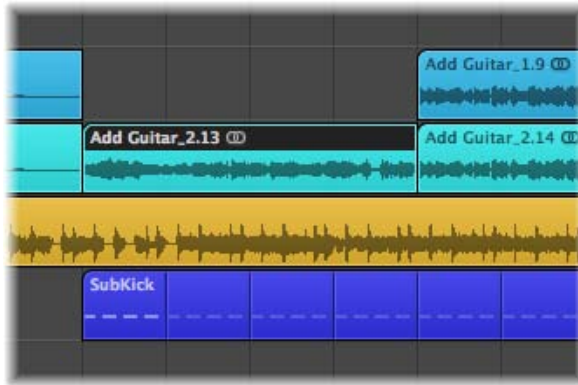
The items that appear in the menu update to reflect the current context. For example, in the Arrange area:

- With no regions or no selected regions in the Arrange window: A number of Select and Paste commands, plus Scroll in Play are available.
- With one or more regions selected in the Arrange window: Cut, Copy, and Delete, Nudge, Lock/Unlock SMPTE Position and Region Name and Color commands become available.

Note: You can always access a shortcut menu with a Control-click, but you can also make use of the right mouse button to open it. To do so, make sure that the Right Mouse Button: Opens Shortcut Menu pop-up menu item is chosen in the Logic Pro > Preferences > General > Editing pane.

Using Selection Techniques

Whenever you want to perform an operation on one or more regions or events (or other elements, such as Mixer channel strips), you first need to select them. Selected elements, regions, or events are displayed in an inverted color scheme with a highlighted name, or in a user-assigned selection color.



A region or event selected in one window is also selected in all other windows that display that region or event. For example, a note event selected in the Piano Roll Editor is also selected in the Score Editor and Event List. The region that contains the selected event is also selected in the Arrange area.

Changing the window with key focus doesn't affect the selection (as long as you don't click the window background, which deselects everything). Be sure to click window title bars when switching between windows.

Tip: Don't forget about the Zoom functions when making your selections, as high zoom levels can make precise selections much simpler.

Selecting Individual Elements

You can select individual regions or events (or other elements, such as Mixer channel strips) by clicking them with the Pointer tool.

You can deselect them by clicking the window background, or by selecting another region, event, or element.

The Select Next Region/Event, or Set Marquee End to Next Transient key command (default assignment: Right Arrow key) and the Select Previous Region/Event, or Set Marquee End to Previous Transient key command (default assignment: Left Arrow key) provide a quick way to step between (and individually select) regions or events.

In the Arrange area, pressing any letter key selects the first region with a name that begins with the chosen letter (as in the Finder), provided that no key command is assigned to the key.

Selecting Multiple Elements

You will often need to select multiple regions, events, or other elements, in order to move, process, or copy them, for example.

To select or deselect all elements in a window

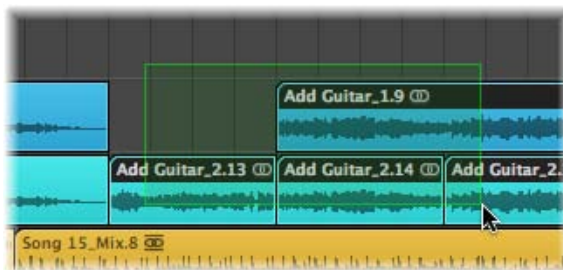
Do one of the following:

- Choose Edit > Select All (or use the corresponding key command, default assignment: Command-A).
- Choose Edit > Deselect All (or use the corresponding key command, default assignment: Shift-Command-A).

Note: When a marquee selection is active, using this key command deselects all current selections, including the marquee selection.

To select several consecutive elements in a window

- Click the background and drag over them.



All elements touched, or enclosed, by the selection rectangle (shaded area) are selected.

To select several noncontiguous elements in a window

- Shift-click them, one-by-one.

As subsequent elements are selected, the previous selections are retained.

Making Horizontal Selections

Horizontal selections can be made in a number of editing windows, allowing you to quickly select all elements that are horizontally aligned on a lane.

Note: When a marquee selection is active, using this key command extends the marquee selection—over all tracks within a marquee selection—to the project end point.

To select all regions on a track in the Arrange area

Do one of the following:

- Click the track name in the track list.
- Choose Edit > Select All Following of Same Track (or use the corresponding key command). All regions following (after) the selected region are selected.

To select all events (of a specified event definition) in the Hyper Editor

Do one of the following:

- Click the event definition name.

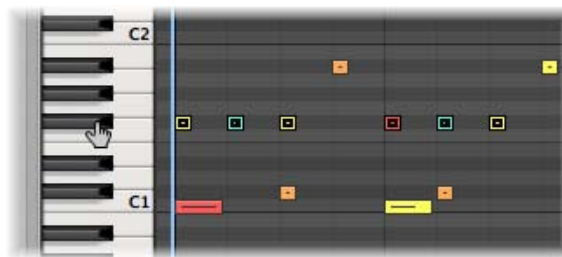


- Choose Edit > Select All Following of Same Track (or use the Select All Following of Same Track/Pitch key command, default assignment: Option-Shift-F). All events after the selected event are selected.

To select all notes of a certain pitch in the Piano Roll Editor

Do one of the following:

- Click the relevant key on the Piano Roll keyboard.



- Choose Edit > Select All Following of Same Track (or use the Select All Following of Same Track/Pitch key command, default assignment: Option-Shift-F).

Important: The selection techniques covered above only affect regions or events that fall within the cycle area defined in the Bar ruler, when Cycle mode is on.

Switching the Selection Status of Elements

When you make any selection (by dragging or horizontal selection) while holding down the Shift key, the active selection status of the elements is reversed.

You can also reverse the selection status of all elements by using Edit > Invert Selection (or use the corresponding key command, default assignment: Shift-I).

For example, if you want to select all regions in a project, with the exception of a few, you can first select the regions that you do *not* want to choose, and then use the Invert Selection command.

Selecting Following Regions or Events

To select all regions or events that follow the currently selected region or event (or, if none are currently selected, to select all regions or events after the playhead position), choose **Edit > Select All Following** (or use the corresponding key command, default assignment: Shift-F).

Note: When a marquee selection is active, using this key command extends the marquee selection—over all tracks within a marquee selection—to the project end point.

To add the following region or event to your selection

- Use the **Toggle Next Region/Event, or Set Marquee Start to Next Transient** key command (default assignment: Shift-Right Arrow).

To add the previous region or event to your selection

- Use the **Toggle Previous Region/Event, or Set Marquee Start to Previous Transient** key command (default assignment: Shift-Left Arrow).

Selecting Regions or Events Within the Locators

Choose **Edit > Select Inside Locators** (or use the corresponding key command, default assignment: Shift-L) to select all regions or events lying wholly, or partly, inside the locator positions.

Note: When a marquee selection is active, using this key command sets the marquee selection to match the locators.

Edit > Deselect Outside Locators (or the corresponding key command) deselects all regions or events outside the locators. Region or event selections within the locator boundaries are unchanged.

Note: When a marquee selection is active, using this key command removes the portion of the marquee selection that does not fall within the locators.

Selecting Specific Regions and Events

You can use the following commands to select regions or events that match a specific condition, or have a particular characteristic.

- **Edit > Select Empty Regions:** Use to select all empty regions (or use the corresponding key command, default assignment: Shift-U).
- **Edit > Select Overlapped Regions:** Use to select all overlapping regions or events (or use the **Select Overlapped Regions/Events** key command).
- **Edit > Select Muted Regions:** Use to select all muted regions or events (or use the **Select Muted Regions/Events** key command, default assignment: Shift-M).

- *Edit > Select Equal Colored Regions*: If you have selected a region or event of a certain color, you can use this command to select all regions or events of the same color (or use the Select Equal Colored Regions/Events key command, default assignment: Shift-C). This is a useful option when replacing song sections and other group editing tasks.
- *“Deselect All Regions except on selected Track” key command*: Deselects any regions not on the currently selected track. This command is especially handy when used after other special selection commands—limiting the effects of ensuing commands to the recording track.

Selecting Similar or Identical Objects, Regions, or Events

If you have selected an Environment object, region, or event, you can use the *Edit > Select Similar Regions* function to select all similar objects, regions, or events (or use the Select Similar Regions/Events key command, default assignment: Shift-S).

You can use the *Edit > Select Equal Regions* function to select all identical regions, events, or objects (or use the Select Equal Regions/Events key command, default assignment: Shift-E).

The table outlines the differences between similar and identical (equal) objects.

Element	Similar	Identical
Region	Region type (audio or MIDI)	<ul style="list-style-type: none"> • MIDI regions: Identical content and size • Audio region: All regions of the same length and position
Controller events	Controller number equal, any data byte (control value)	Controller number and data byte (control value) equal
Note event	Note equal, any octave	Note and octave equal
Environment object	Same object type (for example fader)	Same fader type (for example text)

Selecting Events with the Same MIDI Channel

Following selection of an event, you can select all other events that share the same MIDI channel by using the *Edit > Select Equal Channels* function (or use the corresponding key command, default assignment: Shift-H).

For example, imagine you’re editing a MIDI region that contains volume and pan controller information for 16 MIDI channels.

To select all events on channels 1 and 3

- 1 Shift-select one event on channel 1 and another event on channel 3.
- 2 Choose *Edit > Select Equal Channels* (or use the corresponding key command, default assignment: Shift-H).

All other events on these two channels are selected.

Selecting Regions or Events with an Equal Subposition

You can select all regions and events with a certain relative position, such as all snare drums on the off-beat. Select a region or event at the desired relative position, and choose Edit > Select Equal Subpositions (or use the corresponding key command, default assignment: Shift-P). All regions or events with the same relative position are selected.

Accelerating Edit Operations with Selection Commands

There are many different ways to make selections, based on different criteria. These can be used to speed up many editing operations, in conjunction with key commands. Here are a few examples:

If you want to delete all similar regions, events, or objects, make your selection and use the Delete Similar Regions/Events key command.

Conversely, if you want to keep all similar regions, events, or objects, and delete all others, use the Delete but Keep Similar Regions/Events key command.

You can use the Event Channel +1 key command or the Event Channel –1 key commands to alter the channel number of the selected event (or events) by one, making it easy to reassign it or them to another MIDI channel.

Working with the Clipboard

The Clipboard is an invisible area of memory into which you can copy selected information (such as regions or events), allowing them to be pasted to a different location.

The Clipboard is universal, which means that it can be used to exchange information between projects.

All of the following options are available in the Edit menu.

Cut

All selected elements are removed from their current position, and placed in the Clipboard. Any existing content in the Clipboard is overwritten in the process (default key command assignment: Command-X).

Copy

A copy of all selected elements is placed in the Clipboard. The selected elements are left in place. As with Cut, the contents of the Clipboard are overwritten (default key command assignment: Command-C).

Paste

All content from the Clipboard is copied into the window with key focus. The Clipboard contents are not erased in the process (default key command assignment: Command-V).

Paste at Original Position

This command works in a similar way to Paste, but the regions or events in the Clipboard are always pasted to the position they were originally cut from, regardless of the current playhead position (which is where regions or events would be placed with the standard Paste function).

Paste Replace

This function only works in the Arrange window and editors. It resembles Paste, but all existing regions or events in a given location are replaced by the regions or events being pasted.

Warning: When using this function, all regions or events that lie within the time period occupied by the regions or events on the Clipboard are erased.

Undoing and Redoing Edit Operations

A simple change of mind or editing mistake is an inevitable part of music production. Fortunately, you can backtrack your edits easily in Logic Pro by using the Undo command to reverse your previous edit operation.

To undo your last step

- Choose Edit > Undo (or use the corresponding key command, default assignment: Command-Z) immediately after making the error.

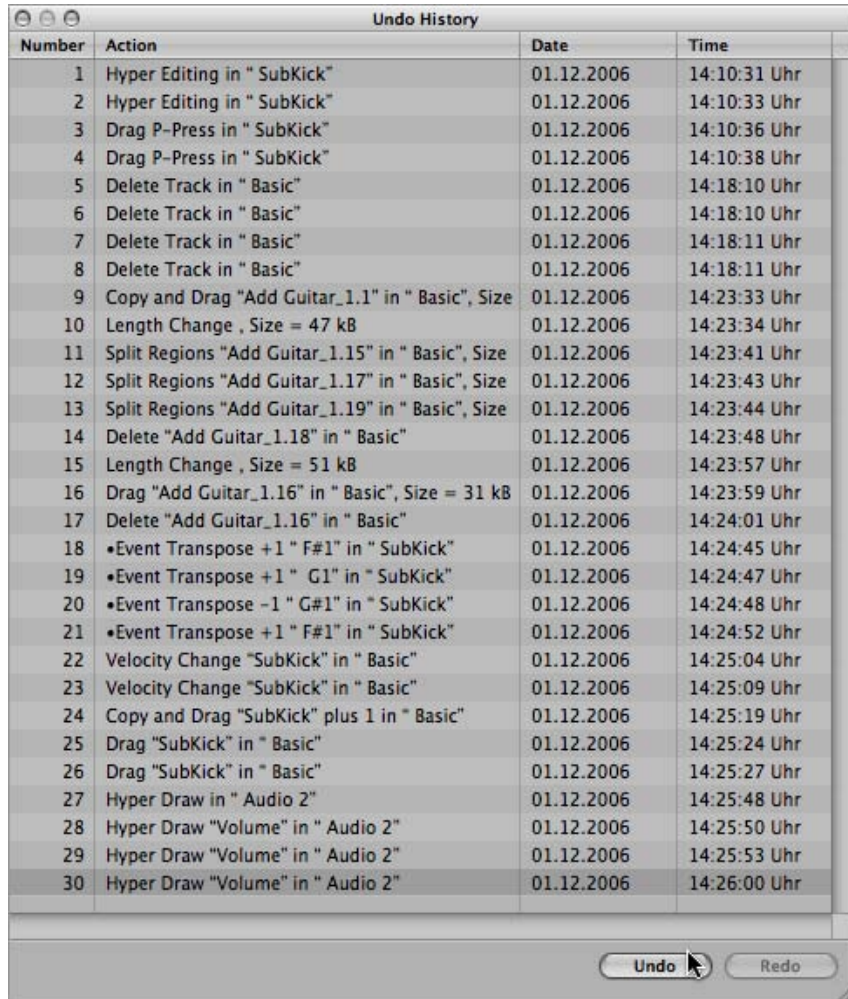
Virtually all edits, including moves, deletions, renaming, parameter changes, creation of new events, regions, or channel strips, and more, can be undone.

The Number of Undo Steps setting in the Logic Pro > Preferences > General > Editing pane determines the maximum number of possible undo steps.



To open the Undo History window

- Choose Edit > Undo History (or use the corresponding key command, default assignment: Option-Z).



Number	Action	Date	Time
1	Hyper Editing in "SubKick"	01.12.2006	14:10:31 Uhr
2	Hyper Editing in "SubKick"	01.12.2006	14:10:33 Uhr
3	Drag P-Press in "SubKick"	01.12.2006	14:10:36 Uhr
4	Drag P-Press in "SubKick"	01.12.2006	14:10:38 Uhr
5	Delete Track in "Basic"	01.12.2006	14:18:10 Uhr
6	Delete Track in "Basic"	01.12.2006	14:18:10 Uhr
7	Delete Track in "Basic"	01.12.2006	14:18:11 Uhr
8	Delete Track in "Basic"	01.12.2006	14:18:11 Uhr
9	Copy and Drag "Add Guitar_1.1" in "Basic", Size	01.12.2006	14:23:33 Uhr
10	Length Change , Size = 47 kB	01.12.2006	14:23:34 Uhr
11	Split Regions "Add Guitar_1.15" in "Basic", Size	01.12.2006	14:23:41 Uhr
12	Split Regions "Add Guitar_1.17" in "Basic", Size	01.12.2006	14:23:43 Uhr
13	Split Regions "Add Guitar_1.19" in "Basic", Size	01.12.2006	14:23:44 Uhr
14	Delete "Add Guitar_1.18" in "Basic"	01.12.2006	14:23:48 Uhr
15	Length Change , Size = 51 kB	01.12.2006	14:23:57 Uhr
16	Drag "Add Guitar_1.16" in "Basic", Size = 31 kB	01.12.2006	14:23:59 Uhr
17	Delete "Add Guitar_1.16" in "Basic"	01.12.2006	14:24:01 Uhr
18	•Event Transpose +1 " F#1" in "SubKick"	01.12.2006	14:24:45 Uhr
19	•Event Transpose +1 " G1" in "SubKick"	01.12.2006	14:24:47 Uhr
20	•Event Transpose -1 " G#1" in "SubKick"	01.12.2006	14:24:48 Uhr
21	•Event Transpose +1 " F#1" in "SubKick"	01.12.2006	14:24:52 Uhr
22	Velocity Change "SubKick" in "Basic"	01.12.2006	14:25:04 Uhr
23	Velocity Change "SubKick" in "Basic"	01.12.2006	14:25:09 Uhr
24	Copy and Drag "SubKick" plus 1 in "Basic"	01.12.2006	14:25:19 Uhr
25	Drag "SubKick" in "Basic"	01.12.2006	14:25:24 Uhr
26	Drag "SubKick" in "Basic"	01.12.2006	14:25:27 Uhr
27	Hyper Draw in "Audio 2"	01.12.2006	14:25:48 Uhr
28	Hyper Draw "Volume" in "Audio 2"	01.12.2006	14:25:50 Uhr
29	Hyper Draw "Volume" in "Audio 2"	01.12.2006	14:25:53 Uhr
30	Hyper Draw "Volume" in "Audio 2"	01.12.2006	14:26:00 Uhr

The Undo History window shows you a list of all actions that can be undone. The most recent step (editing operation), which will be the first to be undone, is selected.

To undo or redo multiple steps

- Click any entry to undo or redo all steps between the clicked and highlighted entries.

To undo or redo an isolated step

- Command-click the step.

This will undo or redo an isolated step without influencing all steps between the clicked and highlighted entries.

To erase the Undo History

- Choose Edit > Delete Undo History.

Warning: Take care with this command. No undos or redos are possible for the deleted steps, once the Undo History has been erased.